

SOUTHEASTERN BIOLOGY



QH301

.A78

v. 51

no. 4

Dec 2004 ume 51

December, 2004

Number 4

ASB 66TH ANNUAL MEETING **APRIL 13-16, 2005**

The University of North Alabama
Florence, Alabama

See Page 369 and Consult Website
<http://www.asb.appstate.edu/Preliminary2005.htm>



Entrance to the university.

The Official Publication of
The Association of Southeastern Biologists
<http://www.asb.appstate.edu/>

SOUTHEASTERN BIOLOGY

(ISSN 1533-8436)

SOUTHEASTERN BIOLOGY (ISSN 1533-8436) is published quarterly in January, April, September, and December by the Association of Southeastern Biologists, Inc., Carolina Biological Supply Co., 2700 York Road, Burlington, NC 27215. Periodicals postage paid at Burlington, NC, and additional mailing offices. POSTMASTER: please send address changes to the SOUTHEASTERN BIOLOGY business manager, Tim Atkinson, Carolina Biological Supply Co., 2700 York Road, Burlington, NC 27215. ASB members receive the SOUTHEASTERN BIOLOGY as part of their membership dues. For non-members, the cost is \$7.00 per issue.

All contributions, inquiries about missing numbers and other matters should be addressed to the Print Editor. News items should be sent to the News Editor. Send books to be reviewed to the Book Review Editor. Printed by Allen Press, 810 East 10th Street, Lawrence, KS 66044.

Print Editor..... James D. Caponetti, Dept. of Botany, University of Tennessee, Knoxville, TN 37996-1100; (865) 974-2256; FAX (865) 974-2258; jcaponet@utk.edu.
Associate Editor Terry Richardson, Dept. of Biology, UNA Box 5212, University of North Alabama, Florence, AL 35632-0001; (256) 765-4429; FAX (256) 765-4430; tdrichardson@una.edu.
Web Editor..... Terry Richardson, Dept. of Biology, UNA Box 5212, University of North Alabama, Florence, AL 35632-0001; (256) 765-4429; FAX (256) 765-4430; tdrichardson@una.edu.
Business Manager..... Tim Atkinson, Carolina Biological Supply Co., 2700 York Road, Burlington, NC 27215; (336) 538-6224; tim.atkinson@carolina.com.
News Editor..... Leon Jernigan, Dept. of Biology, University of North Carolina, Pembroke, NC 28372-1510; (910) 521-6884; Leon.Jernigan@uncp.edu.
Book Review Editor Debbie Moore, Department of Natural Sciences, Troy State University, P.O. Box 8368, Dothan, AL 36304-8368; (334) 983-6556, ext. 250; FAX (334) 983-6322; dsmoore@troyst.edu.
Meetings Coordinator. Scott Jewell, P.O. Box 4156, Glen Raven, NC 27215; (336) 538-6355; FAX (336) 538-6395; a2zconvention@yahoo.com.

ASB OFFICERS

President Claudia L. Jolls, Dept. of Biology, East Carolina University, Greenville, NC 27858-4353; (252) 328-6295; FAX (252) 328-4178; jollsc@mail.ecu.edu.
President-elect Dwayne A. Wise, Dept. of Biological Sciences, P. O. Drawer GY, Mississippi State University, Mississippi State, MS 39762; (662) 325-7579; FAX (662) 325-7939; daw1@ra.msstate.edu.
Vice-President..... A. Joseph Pollard, Dept. of Biology, Furman University, 3300 Poinsett Highway, Greenville, SC 29613; (864) 294-3244; FAX (864) 294-2058; joe.pollard@furman.edu.
Past President..... Andrew N. Ash, Dept. of Biology, University of North Carolina, Pembroke, NC 28372-1510; (910) 521-6418; andy.ash@uncp.edu
Secretary Terry Richardson, Dept. of Biology, UNA Box 5212, University of North Alabama, Florence, AL 35632-0001; (256) 765-4429; FAX (256) 765-4430; tdrichardson@una.edu
Treasurer..... Tim Atkinson, Carolina Biological Supply Co., 2700 York Road, Burlington, NC 27215; (336) 538-6224; tim.atkinson@carolina.com.
Membership Officer Deborah Atkinson, Office of Continuing Education, School of Public Health, University of North Carolina, CB#8165, 400 Roberson Street, Chapel Hill, NC 27599-8165; (919) 843-6892; FAX (919) 966-5692; datkinso@sph.unc.edu.
Archivist..... John Herr, Dept. of Biological Sciences, University of South Carolina, Columbia, SC 29208; (803) 777-8110; FAX (803) 777-4002; herr@mail.biol.sc.edu.

Executive Committee Members-at-Large

2005: Zack E. Murrell, Dept. of Biology, Appalachian State University, Boone, NC 28608-2027; (828) 262-2683; FAX (828) 262-2127; murrellze@appstate.edu.
Thomas R. Wentworth, Dept. of Botany, North Carolina State University, Raleigh, NC 27695-7612; (919) 515-2168; FAX (919) 515-3436; tom_wentworth@ncsu.edu.
2006: Debbie Moore, Department of Natural Sciences, Troy State University, P.O. Box 8368, Dothan, AL 36304-8368; (334) 983-6556, ext. 250; FAX (334) 983-6322; dsmoore@troyst.edu.
Jerry C. Ritchie, USDA-ARS Hydrology Laboratory, BARC-West Building-007, Beltsville, MD 20705; voice (301) 504-8717; secretary (301) 504-7490; FAX (301) 504-8931; jritchie@hydrolab.arsusda.gov.
2007: Elaine J. Davis, Dept. of Natural Sciences, Bowie State University, 14000 Jericho Park Rd., Bowie, MD 20715; (301) 860-3876; edavis@bowiestate.edu.
Scott Franklin, Dept. of Biology, University of Memphis, Ellington Hall, 3700 Walker Ave., Memphis, TN 38152; (901) 678-5539; FAX (901) 678-4746; sfrankli@memphis.edu.

PURPOSE

The purpose of this association shall be to promote the advancement of biology as a science by encouraging research, the imparting of knowledge, the application of knowledge to the solution of biological problems, and the preservation of biological resources. The ASB has representation in Section G Committee of the AAAS. Varying types of membership are available to individuals and institutions. See inside back cover.

TIME AND PLACE OF FUTURE MEETINGS

2005 April 13-16: Hosted by the University of North Alabama, Florence, Alabama.
2006 March 29-31, April 1: Hosted by the University of Tennessee, Knoxville, Tennessee.
2007 April 18-21: Hosted by the University of South Carolina, Columbia, South Carolina.
2008 April: Hosted by Furman University, Greenville, South Carolina.

THE UNIVERSITY OF NORTH ALABAMA

is proud to host the

66th Annual Meeting of the Association of Southeastern Biologists in Florence, Alabama April 13-16, 2005

Preliminary Meeting Information

***(Please note: Registration badges will be REQUIRED to enter
the conference center each day)***

The Area

The University of North Alabama and the entire Shoals area are excited about hosting the 66th Annual Meeting of ASB and would like to extend to you a very warm welcome. The Shoals area has a rich music and recording history and has long been recognized as the "hit recording capital of the world." Such greats as Elvis Presley, Hank Williams, the Rolling Stones, Lynard Skynard, and Jimmy Buffett, just to name a few, have recorded hit songs in our studios. Additionally, Florence is the birth place of W. C. Handy, the "father of the blues," and the Alabama Music Hall of Fame is located here in the Shoals. The Shoals area was the birth place and home of Helen Keller, "America's first lady of courage." From her home, Ivy Green, she learned to read and teach Braille, then traveled throughout the world for the betterment of the deaf-blind and became the subject of the famed William Gibson's play "The Miracle Worker." The Shoals area also has much to offer from the natural wonders of the great Tennessee River and her many tributaries to museums, shops, and malls.

The University of North Alabama

The University of North Alabama is the oldest college in the state and was founded in 1830 on Lagrange Mountain on the south side of the Tennessee River. In 1855, the college was moved to its present location in Florence on the north side of the river. After being occupied alternatively by both northern and southern forces during the Civil War, the college held steadfast and, in 1874, became among the first coeducational institutions in the country. In 1974, the college officially became the University of North Alabama with colleges in Arts and Sciences, Business, Education, and Nursing. The University of North Alabama is a comprehensive regional state university considered to be one of the best values in a liberal arts education in the country and is dedicated to a quality post-secondary education.

The Meeting Site

(Please note: Registration Badges will be REQUIRED to enter the conference center each day)

The meeting will be held at the Florence Conference Center on the banks of the Tennessee River. The Conference Center offers first-class amenities and is the perfect location for the ASB Annual Meeting. The Conference Center offers a large, 500-capacity Ball Room for our Plenary Session on Wednesday evening and our Friday night Banquet. Additionally, there are eight rooms with capacities of 150 each and two rooms seating 50-60 each. The Florence Conference Center has a lovely, high ceiling foyer where we will showcase our exhibitors. Spacious hallways allow ample room for poster presentations and a small preview room is located just off the main foyer. The Convention Center has plans to construct a large hotel on site, but unfortunately, no guaranties could be given that the facility would be completed by the time we hold our meeting.

All lunches will generally be off site, but the Florence Conference Center is located within three minutes of "restaurant row" where ASB members can find, burgers, steaks, Mexican, Italian, and awesome barbeque just to mention a few choice items. Box lunches to eat at the Conference Center are available to order with early registration.

Abstracts and Presentations

Abstracts are due for poster and oral presentations by the **12 November 2005** deadline. All oral presentations at the Convention Center will be made using Microsoft PowerPoint or MS PowerPoint-compatible software. The computers and projectors will be provided by the University of North Alabama. While professional computer technicians will be on site, there will be overhead projectors available as back-ups for any unforeseeable events. You should prepare overheads of your slides just in case. If you prefer to use traditional 2 x 2 slides, you will need to furnish your own projector and carousel.

Lodging

The Holiday Inn, Florence-Muscle Shoals-Sheffield will serve as the host hotel for the 2005 meeting and is located less than 15 minutes from the Convention Center. Rooms are \$60.00/night for up to 4 persons per room. There are a total of 204 rooms available at the Holiday Inn and they are expecting full booking Thursday and Friday nights so make your reservations early (1-800-465-4329; please mention that you are part of the ASB group convention). Although other nearby hotels typically charge higher rates, the Holiday Inn staff will be happy to book you in the nearby hotels for the same low rate should the Holiday Inn run out of rooms. They will contact you with directions and confirmation numbers for the outside booking.

The Holiday Inn will also be the site of all the breakfasts and luncheons for ASB and our affiliates. The luncheons will be light and simple, but the breakfast buffet will provide a hearty meal for starting the day.

The Holiday Inn also offers the lounge *Fizz's* in the downstairs lobby area. *Fizz's* is home each Thursday night to the local "Song Writer's Showcase," where some awesome local talent get together to perform their works. Additionally, *Fizz's* will be providing live entertainment for the ASB guests Wednesday night

after 10:00 PM for those night owls who may want to socialize further into the evening.

Transportation

The University of North Alabama will be providing shuttle buses to and from the Conference Center and all hotels at which members are registered through the Holiday Inn. There should be no longer than a 15-minute wait between buses. Ample parking is available at the conference center for those wishing to drive to the daily meetings. Larger “over-the-road” buses will provide transportation to and from the Thursday night ASB Social.

Registration

UNA Continuing Education will be handling all pre-registration and on-site registration. All pre-registration will be done online and members can pay using MC, VISA, AmEx, or Discover. Additionally, the form can be printed and mailed with a check if desired. Registration is not yet available.

Wednesday Evening Social and Plenary Session

We will continue with the now-forming tradition of having the ASB Plenary Session on Wednesday evening at 7:00, so make plans to be in Florence early. Additionally, we will have a Pre-Plenary Wine and Cheese Welcome Social along with a cash bar from 6-7:00 PM in the foyer with the exhibitors. Following the Plenary session, we will continue the evening’s festivities with the ASB Social Time in the foyer featuring music by local talents “Mitch and Stewart.” This should prove to be a very pleasurable way to kick off our meeting. Finally, following our post-plenary social, in the Holiday Inn lounge, *Fizz’s* will be providing live entertainment from 10:00 PM until for those who can’t seem to get enough socializing.

Thursday Night Social

The 2005 Thursday night ASB Social, dubbed the ***ASB Barn Bust*** promises to be outstanding. Needless to say, the name of the party reflects the nature and location of the event, so your best bet will be to include jeans and old shoes in your meeting wardrobe. The site location will remain undisclosed, so please, no driving to the event; we will provide buses to ferry members to and from the social. We plan to have a foot-stomping good time with live entertainment provided by a great local dance band called the ***Midnighters*** specializing in a great mix of 60’s through today’s rock and roll dance music. The evening’s fare will feature the local specialty of southern fried catfish with all the trimmings of coleslaw, hushpuppies, and “freedom” fries (no french fries here!) along with boiled crawfish and/or shrimp with potatoes and corn all cooked up by a local favorite restaurant called *Cajun’s Seafood*. Beverages for the evening will include iced tea and *plenty* of beer.

ASB Banquet

We are in hopes of increasing our banquet attendance at this meeting, especially student attendance (those competing for awards should remember you must be present at the banquet to receive the award). In order to do so, we have arranged for an outstanding offering at an excellent price. The evening’s

event will be at the Florence Conference Center Ball Room and will offer a choice of fillet mignon, chicken breast, or salmon fillet along with vegetables, roll, dessert, water, and iced tea. Vegetarian meals can be provided upon request. Additionally, wine will be available for purchase to have along with your meal should you so desire. Be sure to attend because you will not want to miss this excellent meal nor the hilarious Past-President's Address by, then, Past President Andrew Ash.

Field Trips

For 2005 we plan to have only three Saturday field trips scheduled. Each will have limited seating available so you will want to register early. The field trips include one to the Nature Conservancy's Prairie Grove Glade home of the lyrate bladderpod, *Lesquerella lyrata*, and the Alabama glade cress, *Leavenworthia alabamica*, and several other glade endemics. Another field trip is to the Sipsey Wilderness Area in Bankhead National Forest where the largest trees in the state are located. Also, a trip is planned to Cane Creek Canyon Preserve, a local preserve set aside by private land owners to preserve the habitats of several threatened and endangered plants (e.g., French's shooting star and the Alabama war bonnet are two).

Spouse Tours

The Florence/Lauderdale Tourism Office has arranged day trips for spouses attending the 2005 ASB meeting. All spouses are cordially invited to participate in the **Renaissance City Spouse Tours**. One tour each day will be conducted and spouses or any other interested parties may join either or both tours.

Day 1 Tour:

Frank Lloyd Wright Rosenbaum House, W. C. Handy Home (the father of jazz), 1800's Pope's Tavern, Helen Keller Birthplace, and lunch at the Alabama Music Hall of Fame with entertainment by local recording artists. Day 1 menu includes L. O. Bishop Barbecue, chips, beans & drink. \$35.00 per person.

Day 2 Tour:

North Florence Village & Downtown Florence, shopping at antique stores, Old Time Hardware Store, unique ladies' & men's apparel boutiques, Kennedy-Douglass Art Center exhibit, gourmet lunch at Eva Marie's Restaurant, and a haunted history walking tour of downtown Florence. Day 2 menu includes choice of 5 different Panini grill sandwiches, chips or salad, drink and dessert. \$27.50 per person.

Please start making plans to attend and we all look forward to seeing you at the 2005 Annual Meeting of ASB!

Terry D. Richardson, Chair
2005 Local Arrangements Committee
tdrichardson@una.edu

**LOCAL COMMITTEE ASSIGNMENTS
FOR THE ASB 66th ANNUAL MEETING
UNIVERSITY OF NORTH ALABAMA
FLORENCE, AL**

<i>Local Arrangements Chair:</i>	Terry D. Richardson tdrichardson@una.edu	256-765-4429
<i>Program Subcommittee (Troy State University):</i>	Neil Billington askdrb@troyst.edu Stephen Landers slanders@troyst.edu Michael Woods mwoods@troyst.edu	334-670-3943 334-670-3661 334-670-3403
<i>Web Coordinator:</i>	Thomas Haggerty tmhaggerty@una.edu	256-765-4432
<i>Beta Beta Beta:</i>	Donald Roush dhroush@una.edu	256-765-4435
<i>Commercial Exhibits:</i>	Scott Jewell a2zconvention@yahoo.com Terry Richardson	336-421-0034
<i>Workshops/Symposiums (Troy State University):</i>	Neil Billington Stephen Landers Michael Woods	
<i>Posters and Audiovisuals:</i>	Mary Ann Allan maallan@una.edu Evelyn Bruce ekbruce@una.edu	256-765-4866 256-765-4933
<i>Field Trips:</i>	Paul Kittle pdkittle@una.edu	256-765-4395
<i>Registration/Meeting Statistics:</i>	Amy Crews-Oyen acoyen@una.edu Donald Roush	256-765-4437
<i>Social Events:</i>	Terry D. Richardson	
<i>Volunteers Coordinator:</i>	Donald Roush	
<i>Transportation/Parking/ Tourism:</i>	Terry D. Richardson	

AFFILIATE SOCIETIES MEETING WITH ASB IN APRIL 2005

HOST: THE UNIVERSITY OF NORTH ALABAMA

The following affiliate societies, except the SE Division of ASIH, will be in attendance at the 2005 Annual Meeting. We anticipate an excellent diversity of paper and poster presentations. The societies and their contacts are listed below.

American Society of Ichthyologists and Herpetologists Southeastern Division

Dr. Michael E. Dorcas
Assistant Professor of Biology
Dept. of Biology, Davidson College
Davidson, NC 28035-7118
(704) 894-2727
(704) 894-2512 FAX
e-mail: midorcas@davidson.edu
<http://www.bio.davidson.edu/dorcas>

Beta Beta Beta Southeastern District I

Dr. Virginia Martin
Queens College of Charlotte
Charlotte, NC
(704) 337-2261
e-mail: martinv@rex.queens.edu

Beta Beta Beta Southeastern District II

Donald H. Roush
Department of Biology
Box 5181 University of North Alabama
Florence, AL 35632-0001
(256) 765-4435
e-mail: droush@unanova.una.edu

Botanical Society of America Southeastern Division

Dr. Lytton John Musselman
Mary Payne Hogan Professor of
Botany and Chair
Department of Biological Sciences
110 Mills Godwin Building/45th St
Old Dominion University
Norfolk, Virginia 23529-0266
(757) 683 3595 Fax: (757) 683 5283
e-mail: lmusselm@odu.edu
<http://web.odu.edu/lmusselman>

Ecological Society of America Southeastern Chapter

Dr. James O. Luken
Department of Biology
P.O. Box 261954
Coastal Carolina University
Conway, SC 29528-6054
(843) 349-2235
Fax: (843) 349-2201
e-mail: JoLuken@coastal.edu

Society of Wetland Scientists South Atlantic Chapter

Dr. Steven J. Miller
St Johns River Water Management
District
P.O. Box 1429
Palatka, FL 32178
(386) 329-4387
Fax: (386) 329-4329
e-mail: sjmiller@sjrwmd.com

Southeastern Fishes Council

Dr. Henry Bart
Tulane Museum of Natural History
Tulane University
Belle Chasse, LA 70037
(504) 394-1771
Fax: (504) 394-5045
e-mail: hank@museum.tulane.edu

Southern Appalachian Botanical Society

Dr. Michael E. Held
Department of Biology
Saint Peter's College
Jersey City, NJ 07306
(201) 915-9189
Fax: (201) 915-9191
e-mail: MHSavanna@aol.com

SPECIAL REMINDERS FROM THE PRINT EDITOR

ASB BANQUET ATTENDANCE

Please keep in mind that recipients of ASB awards must be present at the annual ASB banquet to receive the award. Therefore, all applicants for ASB awards must attend the banquet to insure the presence of the winners.

EXTRA ABSTRACT SUBMISSION

Besides sending abstracts of papers and posters to the Program Committee by November 12, 2004, anyone wishing to be considered for an award must send an abstract to the respective award committee chairperson in order to be considered. Checking the box on the registration form for the award is not enough. An abstract must be sent to the chairperson by January 7, 2005.

INSTRUCTIONS FOR SUBMITTING ORAL PRESENTATIONS

All oral presentations will be done using Microsoft PowerPoint or MS PowerPoint-compatible software only. Presenters must bring backups consisting of multiple copies of disks (CDs) to the meeting. Moreover, 2x2 slide projectors will not be available. Anyone wishing to present using 2x2 slides must bring their own projector. The same applies to overhead projectors.

FINAL SUBMISSION OF CD

Complete and final presentations must be submitted on CD by April 1. The first author's name and truncated title must be written on the upper surface of the CD using an indelible marker.

Submit the CD by the April 1st deadline to: ATTN: ASB 2005 Annual Meeting, c/o Dr. Terry D. Richardson, University of North Alabama, Box 5212, Florence, AL 35632-0001.

ASB EDUCATION COMMITTEE SYMPOSIUM

Teaching Evolution and the Challenge of Intelligent Design

At the annual meeting Friday morning, April 15, 2005, the A.S.B. Education Committee will present a symposium on "Teaching Evolution and the Challenge of Intelligent Design," arranged and moderated by John V. Aliff, Editor of the Georgia Journal of Science. The symposium will address Intelligent Design as a political movement, the scientific and philosophical problems with I.D. ideology, the Kansas State Board of Education science teaching standards controversy, and the teaching of science as scientism—an approach that rejects metaphysical, philosophical, and religious explanations because they cannot be confirmed by science.

Participants



Barbara Carroll Forrest earned a B.A. in English at Southeastern Louisiana University, an M.A. from L.S.U., and a Ph.D. in philosophy from Tulane U. Dr. Forrest is professor of philosophy at Southeastern Louisiana U. Her recent scholarly publications include: *The Possibility of Meaning in Human Evolution*, *Zygon: Journal of Religion and Science*, December 2000; and *Creationism's Trojan Horse: The Wedge of Intelligent Design*, with Paul R. Gross, Oxford University Press, 2004. Dr. Forrest is especially interested in intelligent design as a religious and a political movement.



Taner Edis is an assistant professor of physics at Truman State U., MO. and guest researcher at Lawrence Livermore National Laboratory. After completing his undergraduate work at Bogaziçi U. in Turkey where he was born, he received his Ph.D. in physics from Johns Hopkins U. His research interests include atmospheric modeling and the philosophy of machine intelligence. His first book, *The Ghost in the Universe: God in Light of Modern Science*, an accessible defense of a naturalistic view of the world, Prometheus Books, for which he received the Morris D. Forkosch Award in 2002. Recently, with Matt Young, he co-edited *Why Intelligent Design Fails: A*

Scientific Critique of the New Creationism, Rutgers University Press, 2004.



Massimo Pigliucci is an Italian citizen, who has a Master's degree in Biological Sciences from the U. of Rome, a doctorate in genetics from the U. of Ferrara, and a Ph.D. in botany from the U. of Connecticut. He was formerly associate professor of Ecology and Evolution at the U. of Tennessee. He is now at S.U.N.Y., Stony Brook. Dr. Pigliucci's book, *Denying Evolution: Creationism, Scientism and the Nature of Science*, Sinauer, 2002, examines the evolution–creation movement by dividing the blame for the controversy equally among anti-intellectual creationists and scientists teaching scientism.



Keith Miller is a research assistant professor of geology at Kansas State University. He was educated at Franklin & Marshall College (B.S.), S.U.N.Y., Binghamton (M.S.) and the U. of Rochester (Ph.D. in geology). He is editor of the book, *Perspectives on an Evolving Creation*, Eerdmans Publishing Co., 2003, that sets forth moderate positions on the subject of science and religion. His research interests include paleoecology and the geological record of global climate and environmental change. Dr. Miller has been a leader in the scientific response to the controversy over proposed standards for teaching science education in Kansas that removed the theory of evolution and references to a scientifically determined age of the Earth. ☞

QUILLCON II SYMPOSIUM FOR 2005

The Second Quillwort Conference, Quillcon II, will be held in conjunction with the annual meeting of the Association of Southeastern Biologists in Florence, Alabama, 13-16 April 2005. If you are interested in presenting a paper about Isoetes in the Symposium, participating in a quillwort field trip, and/or socializing with a group of us to learn more about this fascinating genus, please respond to Carl Taylor ct@mpm.edu or Lytton John Musselman lmusselm@odu.edu to be placed on the listserve for updates on Quillcon II.

Tentative Title: QUILLCON II: ADVANCING OUR KNOWLEDGE OF THE ENIGMATIC QUILLWORTS

Tentative Program

- 8:00 Introduction
- 8:10 Jim Hickey: Morphological features useful in distinguishing quillworts
- 8:30 Kathleen Pigg: Fossil quillworts
- 8:50 Jim Mickle: Stomata of fossil quillworts
- 9:10 K Al Arid: Isoetes microspore development
- 9:30 Rebecca Bray: Scales are the rule in southeast US quillworts
- 9:50 Break
- 10:10 Lytton Musselman: Hybrid quillworts
- 10:30 Sara Hoot: Molecular systematics I - Isoetes global phylogeny
- 10:50 Carl Taylor: Molecular studies II - Isoetes regional phylogenies
- 11:10 Kerry Heafner: Isoetes melanopoda complex
- 11:30 Dan Brunton: New rare species of quillworts and their conservation
- 11:50 Summary & 12:00 Lunch

ASSOCIATION OF SOUTHEASTERN BIOLOGISTS

EXECUTIVE COMMITTEE MEETING WEDNESDAY, 14 APRIL 2004 FOGELMAN EXECUTIVE CENTER MEMPHIS, TENNESSEE

ATTENDANCE: 28 individuals attended the meeting.

NAME	CAPACITY	EMAIL ADDRESS
Andrew Ash	President	andy.ash@uncp.edu
Claudia Jolls	President-Elect	jollsc@mail.ecu.edu
Ken Shull	Past President	shulljk@appstate.edu
Kim Marie Tolson	Vice President	bitolson@ulm.edu
Terry Richardson	Secretary	tdrichardson@una.edu
Tim Atkinson	Treasurer	tim.atkinson@carolina.com
Rebecca Cook	Executive Committee Member at Large	cook-reb@lambuth.edu
Michael Dennis	Executive Committee Member at Large	Mike@bda-inc.com
Tom Wentworth	Executive Committee Member at Large	tom_wentworth@ncsu.edu
Debbie Moore	Executive Committee Member at Large	dsmoore@troyst.edu
Jerry Ritchie	Executive Committee Member at Large	jritchie@hydrolab.arsusda.gov
Jim Caponetti	Print Editor	jcaponet@utk.edu
John Herr	Archivist	herr@mail.biol.sc.edu
Donald Roush	Tri-Beta Representative	dhroush@una.edu
Mel Beck	Local Arrangements 2004	mbeck@memphis.edu
Scott Franklin	Local Arrangements 2004	sfrankli@memphis.edu
Scott Jewell	Meetings Coordinator	a2zconvention@yahoo.com
Joan Walker	ESA/SE Vice Chair	joanwalker@fs.fed.us
Jennifer Davis	Committee Representative	jdavis@shorter.edu
Catherine Newsome	Committee Representative	newsomec@elon.edu
Robert Haynes	Committee Representative	rhaynes@bama.ua.edu
Joe Pollard	Committee Representative	joe.pollard@furman.edu
Cliff Hupp	Committee Representative	crhupp@usgs.gov
Virginia Martin	Tri-Beta Representative	martinv@queens.edu
Stephen Landers	Program Committee 2005	slander@troyst.edu
Michael Woods	Program Committee 2005	mwoods@troyst.edu
Neil Billington	Program Committee 2005	askdrb@troyst.edu
Patricia Cox	Local Arrangements 2006	pbcox@tva.gov

President Andrew Ash called the meeting to order at 3:05 P.M.:

President's Opening Remarks—Andy opened the meeting by asking for approval of the September 13, 2003, Executive Committee Interim Meeting minutes.

Motion 1: Rebecca Cook moved the minutes be accepted. Tom Wentworth seconded.

Approved.

Action Item 1: Terry is to send a copy of the minutes to Jim Caponetti for the September issue of SEB.

Action Item 2: Andy asked that a description of the ASB gavel be placed in the September issue of SEB.

OFFICER AND COMMITTEE REPORTS

President's Report—Andy presented a written report. He mentioned that ASB was set for annual meeting locations through 2007 with UNA, UT and USC. He said he visited UNA and that everything looked good. Andy pointed out that amendments to the Constitution and Bylaws had been put before the membership to be voted on Friday. Andy said he worked on committee function by asking for portfolios, time lines, etc., to be established and said these are being worked on.

Past President's Report—Ken Shull gave a report. He presented the following motion from the Resolutions Committee and the reasoning for such a resolution. He also mentioned that, if passed, the resolution needs to be sent to the appropriate people.

Motion 2: Ken Shull presented as a motion that ASB adopt the resolution concerning the teaching of creationism and intelligent design (a written resolution was presented). Motion was from committee and needed no second.

Friendly amendments:

Several friendly amendments concerning wording were offered to the resolution and accepted.

Approved as amended.

Ken presented a Resolution of Appreciation to Memphis State University, Christian Brothers University and Rhodes College for hosting the 2004 Annual Meeting.

Motion 3: Kim Marie Tolson moved the resolution be accepted. Ken Shull seconded.

Approved.

Andy pointed out that both of these resolutions would be presented to the membership Friday at the Business Meeting. Ken added that Jon Fortman would be at the banquet.

President-Elect's Report—Claudia Jolls reported. She first covered the charges of her office. She indicated she had been in contact with Dr. William Bass of the Tennessee Anthropological Research Center for the plenary speaker wishing to have a Tennessee native for the plenary session. With Scott Franklin's help, she arranged for Dan Simberloff to be the plenary speaker. He will speak on "Biological Invasions: A war we can win." She communicated with members of the EC and committee chairs about issues relating to patrons and exhibitors, affiliates, and upcoming meetings. She also corresponded with John Herr in relation to state membership representatives to be "point persons" for ASB. She has completed most committee assignments. Incoming chairs have been notified about Saturday's EC meeting and as many as possible will be attending.

Vice President's Report—Kim Tolson presented her report. She said her report was basically the same as the September report. She mentioned there is now a Patron benefit list and that all things dealing with the Patrons and Exhibitors will now go through the patron and Exhibitors Committee. Kim mentioned she will make certain the ASB table is staffed.

Secretary's Report—Terry Richardson presented a written report. He indicated the year had been a busy one. He mentioned he had been in regular contact with the members of the EC about assignments, charges and duties trying to do a better job of communicating with EC members. He mentioned that most of his duties had been routine: preparing minutes, updating the Constitution and Bylaws, and preparing items and amendments for publication for the membership. John McGee of UNA was hired as Web Master and those submitting proposals for symposia had been contacted about approval of their proposal. Terry mentioned he contacted Martin Microscope about allowing Brooks/Cole to sponsor honorable mention awards for the ASB Student Research Award sponsored by Martin Microscope. He said Mr. Martin supported the idea. Jim Caponetti wanted to get a list of membership together for Leon Jernigan and for the web site.

Robert Haynes called for introductions.

Treasurer's Report—Tim Atkinson gave a written report. He reported the FY 2003 from January 1 through December 31, 2003, detailing beginning bank balance, receipts, expenditures, the difference between receipts and expenditures, and the ending balance. Robert Haynes questioned the shortfall of \$9,600.00 wondering if it was due to the Washington meeting expenses or if it was something else we needed to be concerned about. Tim said it was due to the Washington meeting and that it would actually end up coming closer to about \$15,000.00 in losses from the meeting. Robert wondered if this was a problem and if we needed additional revenue. Terry mentioned that it should not be a problem with next year's meeting. Tim also mentioned that he thought that future meeting revenues should cover this loss. Claudia questioned the \$9,600.00 shortfall and expenditure increases. Tim explained this being due to other factors rather than increased expenditures. Tim covered the 2003 budget as planned compared to the actual budget. He pointed out that receipts were less than planned and there was no meeting revenue, *etc.* Tim also covered the Enrichment Fund for FY 2003. He mentioned the contributions were small as was

the interest income, but we had not lost on our investments. Tim then presented a proposed budget for FY 2005.

Motion 4: Debbie Moore moved to accept the 2005 proposed budget as presented. Jerry Ritchie seconded.

Approved.

Local Arrangements Committee, 2004—Scott Franklin and Mel Beck gave a report. 461 were registered, 109 for the banquet, 18 for the Past President's Breakfast, 32 for the ESA luncheon, 44 for the BSA breakfast, and 6 for the SWS gathering. Tri Beta has 30 registered for field trips. Only a total of 16 registered for the all the provided field trips. Both hotels were full. 100 or so had registered on site. Tim asked how many had paid with registration and Scott indicated he did not currently have that information. Banquet photo arrangements had been made. Terry asked for advice for field trips for the 2005 meeting. Terry mentioned only offering two or three. Andy asked Scott about meeting finances and Scott indicated they were hoping to break even.

Membership Officer Report—Tim gave the report. Jim asked about deceased members and wanted to know if anyone knew them well enough to write obituaries for them for SEB. He said he needed these by July first.

Print Editor Report—Jim Caponetti presented a written a report. He said Allen Press was doing a good job and costs were going down. The US Postal Service got the April issue out early and quickly. Jim reported on action items assigned in September. Jim and Don Roush presented proposals on standards for electronic submissions. Two proposals were submitted and the strong and weak points of each were covered. He mentioned that a lot of this will be up to local arrangements and what their IT people can handle. It was pointed out that the biggest problem is people simply following the instructions. Terry suggested the proposals be taken as guidelines to be used by the individual Local Arrangements Committee. Cliff pointed out that those wishing to be considered for an award need to still be reminded to send an abstract to the award committee chair to be considered. He said many think that checking the box for the award will suffice, but they still need to send the abstract to the chair. Jim pointed out that the Patrons are currently getting 4 ads a year.

Old Business—Due to schedules, Andy jumped ahead to old business. Joe Winstead chaired the Ad hoc committee to examine hiring an executive secretary/director and presented the committee's written report. Other members of the committee were Jim Ross and Ross Hinkle. The committee wanted to know if there really was a need, what percent of a full-time job should it be, where would the position be housed and how would it be funded, what current ASB functions would be improved or enhanced by the addition, and what qualifications would be necessary. He said they recommend it be one-third or one-fourth academic load and that this be purchased from the institution by ASB. ASB would then provide salary and travel support and the committee suggested that perhaps an endowment should be built to fund this position. The committee thought the duties should include membership solicitation, maintaining a data base of members, organizing and collecting materials to help with the archives, help coordinate the meetings, might help to better coordinate committee work,

and, perhaps, help ASB serve as a clearinghouse to help undergraduates find graduate schools. The committee thought the qualifications should include significant training in biology, background in computer technology, experience in successful grant writing, and someone who knows ASB well. Discussion ensued and it was determined that it was not necessary to install this position at this time. Andy said he would report to the Past President's Council that the idea was discussed and it was felt that we did not need this position at this point in time.

Action Item 3: Andy should report these findings to the Past President's Council.

Web Editor—Terry gave a written report. Appalachian State will remain the server home, but John McGee is the new webmaster and he is located at UNA. Terry mentioned that we are changing the appearance of the page to make it more user friendly and improve the overall appearance. Terry covered items appearing and that can appear on web page. He requested that the deadline for submissions to the bulletin be posted on the web site.

Action Item 4: Jim needs to send Terry the deadlines for submission of materials for issues of the bulletin.

Some discussion ensued about the server location.

Archivist Report—John Herr provided a written report. He mentioned the overall archiving system was changing and evolving to fit our needs. He received two boxes from Ken Shull and organized these for archiving. He visited the Archives in Athens at UGA and filed away Ken's material and the one year files. John mentioned that Mr. Steven Brown has proposed an online search system for the ASB archives. John provided a handout covering this. John wants us to take a look at it and get back to him with any questions which he will forward to Mr. Brown. Tim mentioned this would be good for our international members and this would be good publicity. John also pointed out that it could enhance institutional memory. Some discussion ensued.

Andy took this opportunity to ask committee chairs to transfer to the incoming chairs the portfolio containing duties, reports, timelines, etc., that he had asked them to prepare. He also requested that time be taken for some conversation between the outgoing and the incoming chairs to discuss any unfinished business, things that need to be done, etc., in order to maintain continuity. Andy stressed that this is very important.

Past President Council—Ken Shull said the Council only had to present the question of hiring an executive secretary/director. This was covered under Old Business above.

Finance Committee—No report.

Enrichment Fund Board—Kim Marie gave the report. She said 18 contributions were made during 2003 for \$375, interest was \$298 for income of \$673. She pointed out that in 2003 Tennessee did not recognize an outstanding biology teacher so no award would be made from the Enrichment Fund account this year.

Auditing Committee—Andy reported that the Auditing Committee had been dissolved and was no longer in existence. This will become official after Friday's vote of the membership.

Committee on Women, Minorities, and Persons with Disabilities—No report was given. Andy, however, stated that the committee had arranged for a symposium on Friday.

Conservation Committee—No report was given.

Education Committee—Co-chairs Jennifer Davis and Catherine Newsome presented the report. They stated that they had planned a panel discussion session on experiences of teaching biology in study abroad programs. They had invited several people to participate in this panel session. They mentioned that a portfolio had been put together. They stated there was little continuity and little information available to help them know what to do when they took over as co-chairs. It was mentioned that the Handbook is too general. It was mentioned that they did not even know that they were expected to attend the interim meeting.

Graduate Student Support Award—Andy gave the report. The committee struggled with the rationale as to how to distribute the travel money. Their solution was to simply divide the money amongst those applying which amounted to \$208 per graduate student. The committee felt some sort of discussion towards alleviating this issue. Andy charged the incoming committee chair with developing protocol for dealing with disbursement of the graduate student travel money and present it at the interim EC meeting for discussion.

Action Item 5: Neil Billington, the incoming Graduate Student Support Award Committee chair, will develop protocol for dealing with disbursement of the graduate student travel money and present it at the interim EC meeting for discussion.

Local Arrangements Committee, 2005—Terry gave a written report of details of the upcoming 2005 meeting in Florence, AL, hosted by the University of North Alabama. He also presented handouts detailing all information about the meeting. He then opened the floor for any questions or comments about the 2005 meeting. Cliff mentioned the web site and Terry said lots of descriptive information is available on the web site. Terry pointed out that regular registration is \$95, student is \$55, rooms are \$60 per night up to four per room, social is \$30 for regular and \$20 for students, ASB Banquet \$25, and \$15 per student. The Program subcommittee presented a day-to-day floor plan. Most details were presented at the previous interim meeting. Terry mentioned that the only items not tied down are the over-the-road buses for the Thursday night social and field trips, and box lunches that may be necessary. Terry pointed out that Troy State University will be handling the abstract submissions and arranging the program. There will also be spouse programs available for attending spouses. Some discussion ensued. Michael Woods presented the floor plan layout for the Program Committee.

Andy took this opportunity to introduce our new meetings coordinator, Scott Jewell. Scott thanked everyone for their confidence in him to arrange the ASB meetings. He mentioned that so far he had been building the exhibitor data base

and currently had 340 in the data base and growing continually. He said he had sent out a direct mail piece to all 340 in the data base for the 2005 meeting. He will be present during the entire 2004 meeting speaking to exhibitors and the LAC people for 2005 and 2006 making sure there is continuity among the meetings. He has already made site visits to the 2005 and 2006 sites.

Andy made a proposal that now that we are back to the President making site visits two years in advance that the acting President making the site visit remaining the main point of contact between the LAC and the ASB EC. It will be included in the handbook as a duty of the Past President. Some discussion ensued.

Local Arrangements Committee, 2007—John Herr gave a brief report. He mentioned he sent out an email attachment regarding the 2007 meeting. John said there are some changes compared to the normal schedule of events. He said there would be a Wednesday night welcome social, Thursday night would be light hors d'oeuvres with beer and wine, and Friday the traditional banquet would actually be more like the traditionally Thursday night social with no presidential address, etc. He mentioned there would be a brief break for awards. Andy pointed out that this format was actually still in discussion phase and that the LAC should still plan the traditional Thursday and Friday night events until otherwise notified from the EC.

Meritorious Teaching Award Committee Report—Tom Wentworth gave the report and indicated there was only one submission and none carried over. They chose not to give the award. He mentioned that we needed to get more aggressive about soliciting nominations. Tom said the advertising seemed sufficient, but that the committee should get more actively involved in getting nominations. Joe Pollard asked that a plea for nominations go out at the Friday Business meeting. Andy agreed. Robert Haynes suggested it be done at the banquet as well.

Nominating Committee—Robert Haynes reported that the committee had put together a list of nominees and they were published in SEB.

Patron Members and Exhibitors Committee—Rebecca Cook gave a report. She mentioned that the roles of patrons versus exhibitors had been sorted out. Also she said that now the committee needs to determine how it will function now that we have a meetings coordinator.

Place of Meeting Committee—Kim Marie reported that we were currently negotiating the 2008 meeting with Furman. Kim recommended that one of the new, incoming Executive Committee Members-at-Large be assigned to the PMC because they have already agreed to three years of service. After the first three years, the entire PMC will be comprised of Executive Committee Members-at-Large. Some discussion ensued. Claudia Jolls offered that our new Meetings Coordinator, Scott Jewell, should serve on the PMC.

Motion 5: Kim Marie moved that the Place of Meeting Committee be staffed by an incoming member-at-large of the EC and the

Meetings Coordinator be permanently appointed as member ex-officio. Ken Shull seconded the motion.

Approved.

Poster Awards Committee—No report.

Publications Committee—Joe Pollard reported. Needed no meeting and nothing was done. However, Joe pointed out that this indicated there were no problems. He pointed out also that the committee needed to be consulted more.

Senior Research Award—Cliff Hupp reported. Associated Microscope will, on a trial basis, partially sponsor the award by donating \$500 toward the \$1,000 award. Cliff noted there was only one new submission and felt the committee needed to advertise better.

Action Item 6: Ray Williams, the incoming chair of the Senior Research Award, needs to be sure to advertise for submissions better.

Mike Dennis encouraged Andy to mention at the business meeting and banquet that more submissions are needed.

Student Research Award Committee—Terry gave the report. He said the committee had selected winners of both student awards as well as chosen one honorable mention for the ASB Student Research Award.

Andy asked for comments from affiliate members. Don Roush commented on Tri-Beta.

OLD BUSINESS(continued)

Andy mentioned the amendments to be voted on Friday. Ken Shull brought up the question of deleting the Finance Committee which really does nothing. This was delayed until Saturday.

Action Item 7: Claudia should include discussion of the deletion of the Finance Committee at Saturday's EC meeting.

Ken brought up the issue of plaques and how many ASB actually pays for versus the award sponsors. Terry mentioned that ASB pays for all the ASB award plaques regardless of who sponsors the award. Ken mentioned he would gladly take over getting the award plaques each year, but that he would need a budget increase.

NEW BUSINESS

None.

Adjournment—6:05 PM

Respectfully Submitted
Terry D. Richardson, Secretary

ASSOCIATION OF SOUTHEASTERN BIOLOGISTS

EXECUTIVE COMMITTEE MEETING SATURDAY, 17 APRIL 2004 FOGELMAN EXECUTIVE CENTER MEMPHIS, TENNESSEE

ATTENDANCE: 28 individuals attended the meeting.

NAME	CAPACITY	EMAIL ADDRESS
Claudia Jolls	President	jollsc@mail.ecu.edu
Dwayne Wise	President-Elect	daw1@ra.msstate.edu
Andrew Ash	Past President	andy.ash@uncp.edu
Joe Pollard	Vice President	joe.pollard@furman.edu
Terry Richardson	Secretary	tdrichardson@una.edu
Tim Atkinson	Treasurer	tim.atkinson@carolina.com
Zack Murrell	Executive Committee Member at Large	murrellze@appstate.edu
Tom Wentworth	Executive Committee Member at Large	tom_wentworth@ncsu.edu
Debbie Moore	Executive Committee Member at Large	dsmoore@troyst.edu
Jerry Ritchie	Executive Committee Member at Large	jritchie@hydrolab.arsusda.gov
Jim Caponetti	Print Editor	jcaponet@utk.edu
John Herr	Archivist	herr@mail.biol.sc.edu
Donald Roush	Tri-Beta Representative	dhroush@una.edu
Mel Beck	Local Arrangements 2004	mbeck@memphis.edu
Scott Franklin	Local Arrangements 2004	sfrankli@memphis.edu
Scott Jewell	Meetings Coordinator	a2zconvention@yahoo.com
Paul Schmalzer	ESA/SE Vice Chair	paul.schmalzer@ksc.nasa.gov
Rebecca Cook	Committee Representative	cook-reb@lambuth.edu
Virginia Martin	Tri-Beta Representative	martinv@queens.edu
Neil Billington	Program Committee 2005	askdrb@troyst.edu
Patricia Cox	Local Arrangements 2006	pbcox@tva.gov
Randy Small	Local Arrangements 2006	rsmall@utk.edu
Ken Shull	Committee Representative	shulljk@appstate.edu
Mike Held	SABS Representative	MHSavanna@aol.com
Bonnie Kelley	Committee Representative	bonnie.kelley@uncp.edu
John Aliff	Committee Representative	jaliff@gpc.edu
Jim Mickle	BSA-SD Representative	for Lytton Musselman
Dennis Haney	Committee Representative	dennis.haney@furman.edu

President Claudia Jolls called the meeting to order at 8:00 A.M.:

President's Opening Remarks—Claudia opened the meeting with a general welcome and asked for introductions. She then proceeded to announce the time and place of the ASB Interim Executive Committee meeting. Jim Caponetti

offered to host the meeting again at Knoxville, TN, September 11, 2004 with breakfast at 8:00 A.M and the meeting starting at 9:00 A.M. Jim presented a map and reservation instructions for the interim meeting in Knoxville. He also presented a budget for the meeting concerning options for breaks, lunch and breakfast.

Motion 1: Andy Ash moved to have two breaks, and lunch with ASB paying. Dwayne Wise seconded

Discussion ensued.

Dwayne withdrew the second and Andy withdrew the motion.

Motion 2: Scott Franklin moved to go with the package that included breaks and breakfast. Joe Pollard seconded.

Approved.

Claudia mentioned that Pat Cox and Randy Small had offered the EC to do a site visit on the Sunday following the EC meeting in September.

AFFILIATE REPORTS

AAAS—Claudia mentioned that Bonnie Kelley had distributed a written report Wednesday at the EC meeting. Bonnie mentioned that her university was no longer able to pay her way to the AAAS annual meetings and suggested the EC replace her with an ASB member that receives some sort of funding to attend the AAAS meeting. Ken Shull offered that ASB pay for attending the AAAS meeting.

Motion 2: Dwayne Wise moved ASB pay for the ASB AAAS representative to attend the AAAS annual meeting. Terry Richardson seconded.

Discussion followed. It was mentioned that the cost of attending the AAAS meeting varied from \$1,500.00 to \$1,750.00. Dwayne questioned ASB's benefits of having someone attend the meeting. Bonnie indicated the affiliates meeting basically gave information on what was happening on a national scale. Bonnie said she did not think there were any benefits that could not be obtained electronically from AAAS.

Motion failed to pass.

Claudia mentioned this was an issue that could be revisited at the September EC meeting.

Action Item 1: EC may revisit the issue of a AAAS representative.

It was determined that at least until the interim meeting Bonnie would continue to serve as the ASB representative gaining information electronically.

BSA-Southeastern Division—Jim Mickle addressed the EC. He wants to present a student award to the best student paper in any area of botany. Some discussion followed. Zack Murrell suggested that Paul Schmalzer email a

template of the ESA proposal to Terry and he would forward this template to Lytton Musselman and Jim Mickle.

Action Item 2: Paul should email Terry a copy of the ESA poster award proposal and Terry should forward this on to Jim and Lytton.

Claudia temporarily suspended Affiliate reports and opened Committee reports.

OFFICER AND COMMITTEE REPORTS

Poster Award Committee—Dennis Haney offered that the committee wanted to change some of the wording in the Poster Award announcement regarding the hypotheses statement. Claudia assigned Dennis and the Poster Award Committee the task of making the proposed changes and emailing them to Terry.

Action Item 3: Dennis and the Poster Awards Committee need to make the changes in the announcement and email a copy of the new announcement to Terry.

Claudia returned to Affiliate reports.

AFFILIATE REPORTS (cont.)

ASIH-Southeastern Division—Michael Dorcas was not present. For information purposes, Terry brought up that ASB might be approaching a small affiliate crisis. He mentioned, as most EC members were aware, that the Southeastern Society of Parasitologists did not meet with us this year as would normally occur mainly due to meeting expense. He added that it appeared as though ASIH-SD and Southeastern Fishes Council would not be meeting with us next year. John Aliff addressed the SSP issue. He indicated he would email Sharon Patton, SSP Secretary, at the University of Tennessee, Knoxville, and try to initiate some conversation as to exactly what is going on.

Action Item 4: John should open conversation with Sharon Patton with regards to SSP continuing to meet with ASB every other year.

Terry commented briefly on the history of the “ill relationship” between SSP and ASB. Andy indicated that the problem was more a matter of choice and being able to choose what you want to pay for at the meeting instead of bundling things together. He suggested that maybe we should start asking the affiliates what they expect from ASB and see what they think they should get from the relationship. Dwayne Wise suggested that maybe we should make an officer of the affiliate an ASB EC member in order to enhance integration between ASB and its affiliate members. Don Roush, Tri Beta Representative, offered that affiliate members are invited to ASB EC meetings and should attend and voice their concerns and ideas. Paul Schmalzer, ESA-SE Representative, commented that he, too, thought affiliates should try to attend the ASB EC meetings in order to have input. Claudia indicated she was hearing that there needs to be more communication and outreach from the ASB EC to the affiliates. Don indicated he thought the communication was sufficient and that since 1991 each ASB president had extended an invitation to Tri-Beta to attend EC meetings and assumed other

affiliates were receiving them as well. He felt more effort on the part of the affiliates to attend ASB EC meetings was needed. Joe Pollard addressed the issue of combining registration and membership or membership renewal. Terry commented on Joe's remarks. Ken Shull suggested that Claudia call a meeting consisting of the Presidents of the affiliate organizations and ASB's President, President Elect and Past President to discuss concerns and issues from both sides. He further suggested this meeting could be held at the next Annual Meeting. Claudia pointed out two issues: first, we already have two meetings at which affiliates should attend; second, she suggested we should approach each affiliate individually to see what the issues are with each one. Andy agreed that it should be more a "fence mending" approach from ASB. Claudia assigned Dwayne and Andy as an ad hoc committee to help her with affiliates and report back at the interim meeting. She also asked John Aliff if he would work with her to help resolve issues with SSP.

Action Item 5: Dwayne, Andy, and Claudia shall work with affiliates and affiliate issues and report back at the interim meeting.

Motion 3: John Aliff moved that the president or secretary of the affiliates be official members of the ASB EC. Dwayne seconded.

Discussion ensued. It was pointed out that it would require a change in the Constitution and Bylaws. There was further discussion. Claudia pointed out that we needed to look more closely at the issue.

Question was called by Dwayne.

Motion failed.

Tri- Beta—Virginia Martin reported. She said Tri Beta was growing and that they welcome the interaction with ASB. Dwayne mentioned that Tri Beta was a fertile ground for getting top notch graduate students. He added that as an Association we should be letting other graduate degree-granting institutions know about what goes on at ASB meetings with respect to Tri Beta. Don Roush commented on the recent problem of ASB meeting costs. He indicated that the 2005 meeting in Florence was ideal in terms of cost for Tri Beta members. Some discussion ensued. Claudia closed discussion of the issue.

ESA-SE—Paul Schmalzer reported. He presented a proposal to the ASB EC for a "Quaterman-Keever Award" for the best student poster in ecology. The award will be for \$300 and ESA-SE will handle judging. The award will begin in 2005.

Motion 4: Jerry Ritchie moved ESA-SE's proposal be accepted. Andy seconded.

Approved.

Paul mentioned ESA-SE held elections and that Jim Luken would be the new president effective in August. Terry mentioned that ASB patron member Thomson-Brooks/Cole is publishing a revised edition of Eugene Odum's ecology

textbook and because of this, Thomson-Brooks/Cole will be assisting ESA-SE in the cost of the Odum Award.

Society of Wetland Scientists—Paul Schmalzer spoke for SWS. He said their meeting was small and that they presented two student travel awards this year in an attempt to increase attendance at the meeting. They are looking for additional ways to increase participation at the ASB meeting.

SABS—Zack Murrell reported. He indicated that Mike Held is the new president. Claudia returned to committee reports.

OFFICER AND COMMITTEE REPORTS

Local Arrangements Committee 2004, Memphis—Mel Beck gave preliminary figures. Registration total was 523 plus 36 exhibitors. About half, 45%, were students, 50% were members and nonmembers, 4% were spouses and 1% fell into an "other" category. There were 130 in attendance at the Banquet. Tri Beta had 38 take the field trip. Participation in the other field trips was small with only a total of 17 signing up for the trips. Mel mentioned that only about 50% of the PowerPoint presentations were received ahead of time. It was suggested that photos be compressed and to let people know ahead of time the operating system of the PC's being used at the meeting. It was also pointed out that we need to send acknowledgement of receipt of abstracts to presenters. Joe suggested a preview room with the uploaded presentation.

Action Item 6: The Program Subcommittee of 2005 should send acknowledgement of receipt of abstracts to the senders of the abstracts.

Local Arrangements Committee 2006, Gatlinburg—Pat Cox and Randy Small were in attendance. Pat said Scott was still negotiating hotel prices. Pat indicated that the cost should be relatively low for this meeting. The convention center is being remodeled and we will be the first ones to use the newly renovated facility. Terry asked that a block of rooms be set aside for the EC at the Glenstone Lodge. Pat asked about the Thursday night Social and Friday night Banquet changes that had been discussed. She said she needed to know what the plan was so that they could make the appropriate arrangements.

NEW BUSINESS

Ken Shull's proposal about doing away with the Friday night Banquet and moving the Thursday night Social to Friday night was brought up and discussed. Ken first covered the rationale for the proposed change basically indicating that it could be a partial solution to several problems including Banquet attendance and attendance at the Business Meeting. The proposal, in essence, would eliminate the Banquet as such and move the Thursday night Social to Friday night. This would eliminate the Past President's Address and likely get more people to stay on Friday night. During the "Friday night Social" awards would be presented during an intermission. This, in turn, would free up Thursday night for the Plenary Session and the Business Meeting could be held immediately before or after the Plenary Session. Ken believes this would increase attendance at the Business

Meeting. This would free up Wednesday night and the 11:30-12:00 time slot on Friday allowing for more papers. Wednesday could be used for special symposia. Discussion ensued. Claudia pointed out that we do not seem to need to make any radical changes at this time. She further suggested that the issue has simply been put before the EC for fruitful discussion and that perhaps this may be something to be more formally addressed as guidelines or rules for the Local Arrangement Committees.

Local Arrangements Committee 2007, Columbia—John Herr reported. He mentioned the convention center was currently under construction and is to be finished in 2005. Preliminary cost estimates suggest that room rental and food uses will offset the costs of meeting rooms.

Local Arrangements Committee 2005, Florence—Terry reviewed the 2005 meeting basically saying it is ready.

Meetings Coordinator Report—Scott thanked everyone for bringing him on board. He will be working simultaneously on 3 meetings at once. He has already made site visits to Florence and Gatlinburg and is planning a visit to Columbia within the next month. He is trying to recruit more exhibitors. He wants to exhibit and recruit at affiliate meetings. He is still working on a data base of exhibitors and wants to construct a “conference level” data base about attendance numbers, *etc.*

Scott Franklin said we should recognize Mary Bartlett and Cathy Durham with letters of thanks for helping make the 2004 meeting run so smoothly.

Action Item 7: Claudia needs to send letters of appreciation and thanks to Mary Bartlett and Cathy Durham at the Memphis Fogelman Center and Holiday Inn.

Claudia went over committee assignments. Claudia also discussed the confusion of appointing the past chair of the LAC to the Place of Meeting Committee. She clarified that the Bylaws indicate the past chair is to be appointed to the Patron and Exhibitors Committee rather than the Place of Meeting Committee. With this clarification, she suggested that a motion passed Wednesday to appoint a new incoming Executive Committee Member-at-Large to the Place of Meeting Committee was unnecessary.

Motion 5: Jerry moved that we repeal Wednesday's motion of appointing an incoming EC Member-at-Large to the Place of Meeting Committee and making the ASB Meetings Coordinator a member ex-officio of the Place of Meeting Committee. Joe Pollard seconded.

Discussion ensued.

Approved.

Motion 6: Jerry moved the ASB Meetings Coordinator be appointed member ex-officio with vote to the Place of Meeting Committee. Dwayne Wise seconded.

Discussion followed.

Approved.

Claudia continued with committee appointments. Claudia next opened the floor for comments from committee chairs. Rebecca Cook made some remarks about how the Patron and Exhibitors Committee was going to help recruit past exhibitors that are no longer attending. Zack brought forth concerns about the Graduate Student Travel Awards Committee and the restriction of not funding registration. He felt the committee should have fewer restrictions to act as they feel necessary in awarding the funds. Discussion followed mostly related to exactly what guidelines or rules should be followed by the committee in awarding the travel money.

Action Item 8: Claudia charged Neil Billington and the upcoming Graduate Student Travel Support Awards Committee to look into this issue and make a presentation at the interim meeting.

Claudia pointed out that issues like this is why we need to have committee chairs continue to develop and work on the portfolios that were requested by then President Andy Ash.

Action Item 9: Claudia will follow up on Andy's initiation of the portfolios contacting committee chairs making sure they are developing these.

Tom Wentworth of the Meritorious Teaching Award Committee wanted to know who the incoming member was. Bonnie reiterated that we need to give the MTA support and encouraged everyone to make nominations. Some discussion followed.

Action Item 10: Claudia charged the MTA Committee to actively seek nominations of individuals worthy of the MTA. She also charged the committee to examine the guidelines required for nomination to see if they might possibly be stream-lined and report back at the interim meeting.

Tim Atkinson pointed out that any proposed changes would have to be approved by the sponsor. Tom offered some suggestions to help increase nominations.

Action Item 11: Claudia charged the MTA Committee to strongly consider nominating one or more individuals themselves.

Claudia mentioned she and Joe Pollard would be working together to get a letter of invitation to ASB from Furman University for the 2008 meeting. She also mentioned she wanted to work with Andy and Dwayne to bring in new affiliate members in addition to addressing issues with current affiliates. Dwayne mentioned the SE-Microscopy Society may join as an affiliate. Claudia mentioned the Southeastern Society of Plant Biologists as a potential affiliate. John Herr said the herbarium curators that always ask for a place on our meeting schedule are working to formalize into the Association of Herbarium Curators. Currently, Michael Woods is president. John indicated they wanted to affiliate with ASB and be incorporated into the ASB Annual Meeting.

- Action Item 12:** Claudia charged Andy and the Past Presidents' Council to define exactly what an affiliate is and what qualifies an entity to be an affiliate of ASB and report at the Saturday EC in 2005.

Terry mentioned that Joan Walker of ESA-SE had mentioned that the Southeastern Association of Marsh Ecologists wants to be an ASB affiliate and meet with ASB. More discussion followed.

Claudia mentioned at the Business meeting that the EC be charged with approving an auditor.

- Motion 7:** Dwayne moved we approve Apple, Bell and Johnson as the official auditing firm for the 2004 ASB audit. Bonnie seconded.

Some discussion followed.

Approved.

- Action Item 13:** Charged Scott Jewell to assimilate as much information as possible about past meetings and put it into a data base for accessing by future LAC chairs.

Andy presented a request from the Past Presidents that ASB initiate one or two awards in the amount of \$1,000; should be for the school that brings the most students and the other be to the institution bringing the most Tri Beta students. Discussion ensued.

- Action Item 14:** Claudia appointed an ad hoc committee of Joe Pollard, Zack Murrell, and Don Roush to define two new types of awards relating to numbers of individuals attending.

Tim mentioned that Mike Dennis asked if we were at a point where we could start doing election of officers by mail. Dwayne said the person that constructed our membership list web page, could construct an online voting web page. John Herr suggested we start by simply using US Postal service.

- Motion 8:** Terry moved we make the necessary Bylaws changes to begin electing officers via mail-in ballot or electronic ballot. Jim Caponetti seconded.

Discussion followed.

Dwayne Wise tabled the motion. Tabling the motion was approved.

- Action Item 15:** Claudia appointed an ad hoc committee of Dwayne, Terry, Mike Dennis, and Tim to examine the issue of electing officers by mail or electronically rather than at the meeting.

Tom Wentworth addressed what should actually be written down to be passed along from chair to chair. He requested that this be put into the handbook. Terry addressed the issue for clarification. Basically, Tom wanted to get more detail into the handbook and make it a comprehensive document. Claudia again

emphasized she and Andy need to contact all committee chairs to get the handbook changes and details sent electronically to Terry.

Adjournment—11:29 AM

Respectfully Submitted,
Terry D. Richardson, Secretary



University of North Alabama's newest Fighting Lions mascots,
Una and Leo III.

AWARDS FROM THE AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS

2004 AWARDEES

Robert H. Gibbs, Jr. Memorial Award

Presented for excellence in systematic ichthyology. In May 2004, at the ASIH annual meeting in Norman, Oklahoma, the award was presented to **Dr. Edward O. Wiley**, University of Kansas. Dr. Wiley published over 100 papers on fish systematics and systematics theory principally phylogenetic and vicariance biogeography. He is the author of the 1981 book *Phylogenetic Systematics* and co-wrote the *Compleat Cladist* and *Evolution as Entropy*.

Henry S. Fitch Award

Presented for excellence in herpetology. In May, 2004, at the ASIH annual meeting in Norman, Oklahoma, the award was presented to **Dr. Harry W. Greene**, Cornell University. Dr. Greene was selected for the award based on his being a wonderful historian, a renowned teacher, a stimulating and effective communicator to his scientific peers and the public, and who, as a budding herpetologist, was deeply influenced by Henry Fitch.

Robert K. Johnson Award

Presented for excellence in service. In May 2004, at the ASIH annual meeting in Norman, Oklahoma, the first Robert K. Johnson Award was presented to **Dr. Clark Hubbs**, Regents Professor Emeritus of the University of Texas. Dr. Hubbs has contributed in many ways to the society including service on many committees, service on the Board of Governors since 1951, service as Managing Editor of *Copeia* from 1971 to 1984, and service as President in 1987.

Raney Fund Awards

Awards of \$1,000 were made to each of the following young ichthyologists in 2004. They are listed by name, institution, and title of proposed research.

Christen Bossou, University of Tennessee, Knoxville. "The effects of light environment on color divergence and species diversity in barcheek darters."

Brian Langerhans, Washington University. "Predator-driven adaptive diversification in an endemic livebearing fish."

Shannon Martin, University of Louisiana at Lafayette. "Reproductive strategies of coastal marine fishes: Testing the potential trade-offs due to sea level rise."

Aaron Rice, University of Chicago and Field Museum of Natural History. "Evolution of reef fish feeding: Coordination of feeding, visual, and locomotor behaviors in wrasses and parrotfishes."

Jada-Simone White, University of Florida. "Long-term effects of variable recruitment—linking early and late life history stages in a reef fish."

Gaige Fund Awards

Awards of \$500 were made to each of the following young herpetologists in 2004. They are listed by name, institution, and title of proposed investigation.

Venetia S. Briggs, University of Miami. "Sexual selection and larval performance of Neotropical frogs of the Chiquibul Forest Reserve, Belize."

Alessandro Catenazzi, Florida International University. "Marine productivity and gecko populations in the Peruvian coastal desert: The importance of marine food subsidies as revealed by stable isotope and dietary analyses."

Kamelia Fallahpour, California State University, Northridge. "Effects of female breeding coloration on the behavior and mate selection of male leopard lizards, *Gambelia wislizenii*."

Raymond A. Hernandez, California State University, Northridge. "Allometric engineering of the desert tortoise *Gopherus agassizii*: An empirical test of the minimum body size hypothesis" [awarded, but declined funds].

Lesley T. Lancaster, University of California, Santa Cruz. "Evolutionary patterns of changing reaction norms and the evolution of complex specialization: Investigation of intrapopulational differences in endocrine maternal effect initiation and response plasticities in the side-blotched lizard *Uta stansburiana*."

Deborah I. Lutterschmidt, Oregon State University. "Comparative physiology of 'time-keeping' mechanisms: Evolved or environmentally induced?"

Suzanne McGaugh, Iowa State University. "Ecological and genetic dynamics of invasive-endemic interactions."

Nancy M. Schoeppner, University of Pittsburgh. "Understanding the effects of malathion on amphibian communities: A mechanistic approach."

C. Tristan Stayton, University of Chicago. "Patterns of functional and morphological convergence among herbivorous lizard skulls."

Daniel A. Warner, University of Sydney (Ph.D. expected in 2006). "The adaptive significance of temperature-dependent sex determination: An experimental test using an Australian agamid lizard."

Dennis K. Wasko, University of Miami (Ph.D. expected 2007). "Top-down effects of a tropical predator, *Bothrops asper*."

Stoye Awards

Awards for best oral presentations were made to each of the following students in 2004. Each winner received a monetary prize and all available back issues of *Copeia*. They are listed by name, institution, category, and title of oral presentation.

John F. Switzer, St. Louis University; General Ichthyology. "Molecular systematics and phylogeography of the *Etheostoma variatum* species group in the Kanawha/New River drainage."

Thomas J. Devitt, University of California; General Herpetology. "Phylogeography of lyresnakes (*Trimorphodon*): Testing biogeographic hypotheses for North and Middle American aridlands."

Heidie M. Hornstra, Northern Arizona University; Genetics, Development, and Morphology. "Gas bladder movement in lionfishes: A novel mechanism for control of pitch?"

Maria Thaker, institution unlisted; Ecology and Ethology. "Sensory cues, association preferences and cohabitation patterns of San Marcos salamanders (*Eurycea nana*)."

Jason J. Kolbe, Washington University; Conservation. "Origin, colonization, and population structure of the invasive lizard *Anolis sagrei*."

Stoye Honorable Mentions

Jacob D. Egge, University of Minnesota; General Ichthyology. "Systematics of the Ozark Madtom, *Noturus albater*, with the description of a new species."

Emily N. Taylor, Arizona State University; General Herpetology. "Why are male rattlesnakes larger than females?"

Kimberly M. Andrews, Savannah River Ecology Laboratory and University of Georgia; Conservation. "To cross or not to cross: A behavioral investigation of responses to roads by southeastern snake species."

Storer Awards

Awards for best poster presentations were made to each of the following students in 2004. They are listed by name, institution, category, and title of poster presentation.

Wasila M. Dahdul, University of Pennsylvania; Ichthyology. "Utility of vertebral morphology and meristic counts for phylogenetic analysis in the Neotropical Serrasalminae (Ostariophysi: Characiformes)."

Emily N. Taylor, Arizona State University; Herpetology. "Reproductive ecology of the Western Diamond-backed Rattlesnake."

The *Southeastern Naturalist* . . .

- ♦ A quarterly peer-reviewed and edited interdisciplinary scientific journal with a regional focus on the southeastern United States (ISSN #1528-7092).
- ♦ Featuring research articles, notes, and research summaries on terrestrial, freshwater, and marine organisms, and their habitats.
- ♦ Focusing on field ecology, biology, behavior, biogeography, taxonomy, evolution, anatomy, physiology, geology, and related fields. Manuscripts on genetics, molecular biology, archaeology, anthropology, etc., are welcome, especially if they provide natural history insights that are of interest to field scientists. Symposium proceedings are occasionally published.
- ♦ Indexed in Biological Abstracts (BIOSIS), BIOSIS Previews, CAB Abstracts, Cambridge Scientific Abstracts, EBSCOhost, Environmental Knowledgebase (formerly Environmental Periodicals Bibliography), FISHLIT (Fish and Fisheries Worldwide; Aquatic Biology, Aquaculture, and Fisheries Resources), Wildlife Review Abstracts, and Zoological Record (BIOSIS UK). Arrangements for indexing in Elsevier BIOBASE (Current Awareness in Biological Sciences), and ISI Services (Science Citation Index-Expanded, ISI Alerting Service, and Current Contents/Agriculture, Biology, and Environmental Sciences) are pending.
- ♦ A sister journal of the *Northeastern Naturalist* (ISSN #1092-6194), published since 1997. Both journals are identical in focus, format, quality, and features. The journals together serve as a matched-pair of regional journals that provide an integrated publishing and research resource for the eastern part of North America.
- ♦ Printed by Allen Press, printer of many journals in the biological and environmental sciences, especially those whose parent organization is a member of the American Institute of Biological Sciences (AIBS).
- ♦ Available online in full-text version in the BioOne database (www.bioone.org, a collaborative effort of Allen Press, AIBS, and other organizations) and the Proquest Information and Learning databases (www.il.proquest.com).
- ♦ For information, instructions for authors, and subscriptions: *Southeastern Naturalist*, PO Box 9, 59 Eagle Hill Road, Steuben, ME 04680-0009; 207-546-2821, FAX: 207-546-3042; <mailto:office@eaglehill.us>; <http://www.eaglehill.us/jsgeninf.html>. Online secure ordering of subscriptions is available!

Southeastern Naturalist

Volume 3

2004

Number 2



Southeastern Naturalist

Volume 3	2004	Number 2
----------	------	----------

CONTENTS

Nest Success of Southeastern American Kestrels Associated with Red-Cockaded Woodpeckers in Old-Growth Longleaf Pine Habitat in Northwest Florida	191
K.E. Gault, J.R. Walters, J. Tomcho, Jr., L.F. Phillips, Jr., and A. Butler	
Changes in the Fish Assemblage of Bear Creek (Tennessee River Drainage) Alabama and Mississippi: 1968–2000	205
Bryan W. Phillips and Carol E. Johnston	
Recovery of Meiofauna in Intertidal Feeding Pits Created by Rays	219
Randall E. Cross and Mary Carla Curran	
Prehistoric and Pre-Impoundment Populations of Freshwater Mussels (Bivalvia: Unionidaue) in the South Fork Holston River, Tennessee	231
Paul W. Parmalee and Richard R. Polhemus	
Survey of Salamanders in Mississippi Limestone Caves	241
John G. Himes, David C. Beckett, and Austin W. Trousdale	
Population Characteristics of <i>Siren lacertina</i> and <i>Amphiuma means</i> in North Florida	249
Kristina Sorensen	
Important Records of the Bird-Voiced Treefrog (<i>Hyla avivoca</i>) in the Headwaters of the Ouachita River Drainage of Southwestern Arkansas	259
Tobin Fulmer and Renn Tumlinson	
Observations on the Reproductive Behavior of Nonindigenous Rough Shiner, <i>Notropis baileyi</i> , in the Chattahoochee River System	267
Steven J. Herrington and Karen J. Popp	
Convergence in the Leaf Shape of Vines: A Test of the Carolina Flora Using Phylogenetic Comparative Methods	277
Carol Goodwillie, Melynda K. May, Jennifer W. West, and Christian S. McKeon	
Notes on the Life History and Demographics of the Savannah Lilliput (<i>Toxolasma pullus</i>) (Bivalvia: Unionidae) in University Lake, NC	289
Shane D. Hanlon and Jay F. Levine	
Species Composition of Fire Disturbed Ecological Land Units in the Southern Loam Hills of South Alabama	297
Robert E. Carter, Mark D. MacKenzie, Dean H. Gjerstad, and David Jones	
Floral Anatomy and Pollination Biology of <i>Cyrilla racemiflora</i> (Cyrillaceae)	309
R.R. Dute, D.R. Folkerts, J.E. Watkins, M.E. Saxon, and R.S. Boyd	
Composition and Structure of a 1930s-Era Pine-Hardwood Stand in Arkansas	327
Don C. Bragg	
Effects of Land Use and Disturbance on Benthic Insects in Headwater Streams Draining Small Watersheds North of Charlotte, NC	345
Maury S. Gage, Aaron Spivak, and Christopher J. Paradise	
Hatching of Rotifer Eggs from Reservoir Sediment	359
Christopher J. Albritton and David S. White	
Discarded Bottles as a Cause of Mortality in Small Vertebrates	371
Russell A. Benedict and Mary C. Billeter	
Book Reviews	378



AWARDS FROM THE AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS

2005 AWARDS

Robert H. Gibbs, Jr. Memorial Award for Excellence in Systematic Ichthyology

Nominations are solicited for the Robert H. Gibbs, Jr. Memorial Award for Excellence in Systematic Ichthyology from the American Society of Ichthyologists and Herpetologists (ASIH). The prize is awarded for "an outstanding body of published work in systematic ichthyology" to a citizen of a Western Hemisphere nation who has not been a recipient of the award. The award is offered annually and consists of a plaque and a cash award (approximately \$5,000). The award is presented during the banquet held in conjunction with the annual meeting of ASIH. Nominations may be made by any ichthyologist, including self-nominations, and should include the nominee's curriculum vitae, details of the nominee's specific contributions and their impacts on systematic ichthyology. Nominations should be submitted by March 1, 2005 for the nominee to be eligible for that year's award. Nominations will be effective for three years. Four copies of each nomination should be sent to Chair of the 2005 Gibbs Award Committee or to the ASIH Secretary. *Please do not send nominations via e-mail or fax.*

Committee Chair: Dr. Larry M. Page, Florida Museum of Natural History, 2500 NW 19th Way, Gainesville, FL 32605, lpage1@ufl.edu.

ASIH Secretary: Dr. Maureen A. Donnelly, Department of Biological Sciences, Florida International University, 11200 SW 8th St., Miami, FL, 33199, e-mail: asih@fiu.edu.

Henry S. Fitch Award for Excellence in Herpetology

Nominations are solicited for the Henry S. Fitch Award for Excellence in Herpetology from the American Society of Ichthyologists and Herpetologists (ASIH). The prize is awarded for to an individual for long-term excellence in the study of amphibian and/or reptile biology, based principally on the quality of the awardee's research, with consideration given to educational and service impacts of the individual's career in the field of herpetology. The award is presented at the banquet held in conjunction with the annual meeting of ASIH and includes a cash prize and certificate. Nominations may be made by any herpetologist should include the nominee's curriculum vitae, and details of the nominee's specific contributions and their impacts on herpetology. Nominations, including self nominations, should be submitted by March 1, 2005 for the nominee to be eligible for that year's award. Nominations will be effective for three years. Four copies of each nomination should be mailed (not e-mailed) to the Chair of the 2005 Fitch Award Committee or to the ASIH Secretary.

Committee Chair: Dr. Stanley F. Fox, Department of Zoology, Oklahoma State University, Stillwater, OK 74078, foxstan@okstate.edu.

ASIH Secretary: Dr. Maureen A. Donnelly, Department of Biological Sciences, Florida International University, 11200 SW 8th St., Miami, FL, 33199, e-mail: asih@fiu.edu.

Robert K. Johnson Award for Excellence in Service

Nominations are solicited for the Robert K. Johnson Award. The ASIH created the award to recognize members that perform exceptional service for the ASIH in memory of Bob Johnson whose service was exemplary. Bob served on many ASIH committees, four terms as a member of the Board of Governors, was Managing Editor of *Copeia*, Secretary, and Chair of the Long Range Planning and Policy Committee. As chair of the Long Range Planning and Policy Committee, he developed a policy and procedures manual for the ASIH that has proved to be an exceptionally useful document. Bob's committee was inspired by his commitment to this task, which codified the activities of ASIH. The award is presented at the banquet held in conjunction with the annual meeting of the ASIH and includes a certificate. Nominations may be made by any ichthyologist or herpetologist, and should include the nominee's curriculum vitae and details of the nominee's specific service contributions to the ASIH. Nominations, including self-nominations, should be submitted by March 1, 2005 for the nominee to be eligible for that year's award. Nominations will be effective for three years. Four copies of each nomination should be mailed (not faxed or e-mailed) to the Chair of the 2005 Johnson Award Committee.

Committee Chair: Dr. Maureen A. Donnelly, Department of Biological Sciences, Florida International University, 11200 SW 8th St., Miami, FL 33199, email: asih@fiu.edu.

Raney Fund Award

The Raney Award is presented annually in honor of Edward C. Raney (1909-1984). Raney was a leader among Ichthyologists. He possessed a broad knowledge of the fishes of the world, and his particular area of expertise was the fishes of the eastern United States. A member of the faculty at Cornell University, Dr. Raney authored over 75 papers dealing with the systematics, behavior, and ecology of fishes. He was an expert on aquatic environmental problems and served on numerous environmental advisory committees. He was a member of over 30 professional societies, and he served as secretary (1948-1951) and president (1955-1956) of ASIH. The students of Ed Raney are among the leaders in ichthyology today in no small part because of his mentorship and enthusiasm in the study of fishes.

Applications are solicited for grants to be awarded from the Raney Fund for Ichthyology. These funds are used to provide support for young ichthyologists for museums or laboratory study, travel, fieldwork, or any other activity that will effectively enhance their professional careers and their contributions to the science of ichthyology.

Applicants must be members of ASIH and should be enrolled for an advanced degree. Applicants who do not meet these basic requirements may be

considered for the award under exceptional circumstances if their careers are judged to be in a developmental stage. Individual awards are typically in the \$400-\$1000 range and will be awarded on basis of both merit and need.

Applications for the Raney Award and a letter of recommendation should be mailed (not e-mailed) to:

Committee Chair: Dr. Cheryl Wilga, Dept. Biological Sciences, 100 Flagg Rd., University of Rhode Island, Kingston, RI 02881-0816, cwilga@uri.edu.

The original and three copies of each application should consist of no more than two single-spaced, typewritten pages and must include the following:

- (1) name, address, social security number, e-mail address, and telephone numbers of the applicant;
- (2) institutional affiliation;
- (3) academic degree being sought and the year of its expected completion, or highest degree and its date of award;
- (4) name of the applicant's current or most recent major professor;
- (5) title of the proposed research;
- (6) a concise description of research objectives and methods;
- (7) sources of partial support for the research and pending applications for support from other funds;
- (8) an outline budget; and
- (9) a short statement of the way in which the award would be used to enhance research;
- (10) a Literature Cited section should be appended.

Budget items should be listed as nearly as possible in order of priority. Applicants should attempt to keep the budget within the amount of available funds. In case the award must be less than the requested budget, the impact of eliminating part or all of any items should be clearly given.

An original plus three copies of a letter of recommendation from the applicant's current major professor are required. The letter should include statements concerning:

- (1) the competence of the applicant;
- (2) the significance of the applicant's research; and
- (3) the desirability of and needed for the fund being requested by the applicant.

The applicant should request that the letter be sent directly to the Raney Award Committee Chair.

The application and letter of recommendation should reach the Committee chairman no later than 1 March 2005. It is expected that awards will be made by 1 May 2005.

Gaige Fund Award

Gaige Awards are presented annually in honor of Frederick (Dick) and Helen Gaige, both of whom lived during the years 1890-1976. Dick Gaige, an entomologist, was also an avid herpetological collector and was director of the

Museum of Zoology at the University of Michigan from 1928-1945. Helen Gaige was a herpetologist with an interest in Neotropical frogs. She served as herpetological editor of *Copeia* from 1930-1937 and as editor in chief from 1937-1950. This unsurpassed editorial service earned Helen the title of Honorary ASIH President for Herpetology in 1946. The Gaiges showed a lively interest colleagues and students and, through their helpfulness to others, were a major influence in biology in the United States and on herpetology in particular.

Applications are solicited for grants to be awarded from the Gaige Fund. These funds are used to provide support to young herpetologists for museum or laboratory study, travel, fieldwork, or any other activity that will effectively enhance their professional careers by contributing to the science of herpetology.

Applicants must be members of ASIH and should be enrolled in an advanced degree program. Individual awards are typically in the range of \$400-1,000, and will be awarded on the basis of both merit and need.

Applications for the Gaige Award and letters of recommendation should be sent to the Gaige Award Chairperson:

Committee Chair: Dr. Christopher A. Phillips, Illinois Natural History Survey, Center For Biodiversity, 607 East Peabody Drive, Champaign, IL 61820, Email: chrisp@mail.inhs.uiuc.edu.

The original and three copies of each application should be submitted. The application should consist of no more than two single-spaced, typewritten pages (12-point font, reasonable margins) and must include the following:

- (1) name, address, social security number, e-mail address, and telephone numbers of the applicant;
- (2) institutional affiliation;
- (3) academic degree being sought and the year of its expected completion, or highest degree and its date of award;
- (4) name of the applicant's current or most recent major professor;
- (5) names, addresses and telephone numbers of two persons who have agreed to recommend the applicant and proposal (see below);
- (6) title of the proposed research;
- (7) a concise description of the proposed investigation including the general research objectives and methods of study (see below);
- (8) sources and amounts of partial support for the research and pending applications for support and amounts from other sources;
- (9) a prioritized budget outline not exceeding the range of typical awards; and
- (10) a short statement of the way in which the award would be used to enhance research. A Literature Cited section should be appended.

In recent years, successful proposals were carefully prepared, well written, and complete with two letters of recommendation. Award-winning proposal had one or more clearly described central questions that were likely to be answered, at least in part, by completing the proposed research. Importantly, proposals that framed their specific questions within a broader biological context were consistently highly ranked.

Two letters of recommendation from persons familiar with the applicant and his or her research must be solicited by the applicant. One of these letters should be from the current major professor. Both letters should be from reputable scientist, preferably herpetologists, and should include statements concerning the following:

- (1) the competence of the applicant;
- (2) the significance of the applicant's research;
- (3) the desirability of and need for the funds being requested by the applicant.

The applicant should request that the original and three copies of each letter be sent directly to the Gage Award Chairperson. Because of limited funds, previous awardees requesting additional funding for the same or a similar project will be given lower priority.

The application and letters of recommendation should be received by the committee chairperson by 1 March 2005. Students will be notified of the status of their application by 1 May 2005.

Stoye Awards

Stoye Awards of the American Society of Ichthyologists and Herpetologists recognize the best student oral presentations in the following categories:

1. **General Ichthyology** includes, but is not limited to, morphological and molecular systematics, techniques in systematics, zoogeography, paleontology and faunal descriptions.
 2. **General Herpetology** includes, but is not limited to, morphological and molecular systematics, techniques in systematics, zoogeography, paleontology and faunal descriptions.
 3. **Genetics, Development and Morphology (GD&M)** includes, but is not limited to, population genetics, mitochondrial DNA analysis, comparative embryology, heterochrony, descriptive and experimental development, comparative and evolutionary morphology, functional morphology and biomechanics.
 4. **Ecology and Ethology (E&E)** includes, but is not limited to, population and community ecology, life history strategies, descriptive and experimental ethology, behavioral ecology, neuroethology and ecomorphology.
 5. **Physiology and Physiological Ecology (P&PE)** includes, but is not limited to, comparative and experimental physiology, biochemistry, sensory and behavioral physiology and endocrinology.
 6. **Conservation (CONSERV)** includes, but is not limited to, conservation biology, conservation policy, management, and restoration.
-

Storer Awards

Storer Awards of the American Society of Ichthyologists and Herpetologists recognize the best student poster presentations in two categories:

- 1) Ichthyology
 - 2) Herpetology
-

Eligibility and Judging for Stoye or Storer Awards

To be eligible for either Stoye or Storer Awards, a student must (1) be the sole author and presenter, (2) be a member of ASIH, (3) indicate a desire to be considered when submitting an abstract (see "Submitting Abstracts") and (4) meet the ASIH criteria for "student": "an individual who at the time the paper is given ... is the equivalent of a full-time student (... an individual who is devoting their major efforts to a formal program of studies) or who has satisfactorily completed a thesis or dissertation defense during the previous 12 months." Stoye and Storer presentations are judged by the following criteria: introduction; methods; data analysis and interpretation; conclusions - innovation, originality and scientific significance; presentation; and visual aids or graphic design. The rating scale is 0-10 points: excellent (9-10), very good (7-8), good (4-6), fair (2-3), poor (0-1).



"Romeo and Juliet" on the plaza at the University of North Alabama.

**SOUTHERN APPALACHIAN FOREST COALITION
ASHEVILLE, NORTH CAROLINA**

More Information about the Southern Appalachian Forest Coalition (SAFC) may be obtained from the Communications Coordinator, Jackie Dobrinska, by e-mail at jackie@safc.org. The web site is <http://www.safc.org>, and the mailing address is 46 Haywood Street, Suite 323, Asheville, NC 28801. The telephone number is (828) 252-9223, and the fax number is (828) 252-9907.

The following five reports were reprinted with permission from the Summer 2004 newsletter of the SAFC.

NEW WILDERNESS BILL FOR VIRGINIA!

On April 22, Representative Rick Boucher and Senator John Warner introduced the Virginia Ridge and Valley Wilderness and National Scenic Area Act of 2004 (S. 2342 and HR 4202). If enacted, this legislation will protect an additional 29,000 acres of the Jefferson National Forest as wilderness, plus 12,000 acres protected with National Scenic Area designations for Crawfish Valley and Seng Mountain.

"As a father and grandfather, I feel an obligation to ensure that our children have lasting opportunities to enjoy and explore Virginia's immense natural beauty. This bill will preserve some of our most pristine lands for future generations and add significantly to the natural attractions of Southwest Virginia," Senator Warner stated.

The Ridge and Valley Bill will create four new wilderness areas and expands five existing Wilderness areas in Virginia.

SAFC was instrumental in developing and building the broad-based community support needed in order to secure the introduction of the bill, which has been endorsed by local governments, elected officials, local businesses, the Virginia Tourist Corporation, local and national conservation groups, the International Mountain Biking Association, Trout Unlimited, The Nature Conservancy of Virginia, local horse enthusiasts, and hunters.

Our Coalition has created a strong and unified voice to ensure passage of this bill. Collaborators include the Southern Environmental Law Center (SELC), the Virginia Wilderness Committee, Virginia Forest Watch, Coalition for Jobs and the Environment, Clinch Coalition, and the Virginia Wilderness Coalition.

ACTION: *Please contact Senator Warner and Congressman Boucher and thank them for introducing the Bill. Please also voice your support for passage of the bill. Also, call Senator Allen and ask him to cosponsor the Senate Bill. Visit www.vawilderness.org for more information.* Senator John W. Warner (R-VA), 202 224-2023; Representative Rick Boucher (D-VA), 202 225-3861; Senator George Allen (R-VA), 202 224-4024.

LET'S COMPLETE OUR EASTERN NATIONAL FORESTS

National Forests in the Southeast resemble incomplete jigsaw puzzles. On a road map, the shaded green shows the boundaries drawn for potential purchase by the Forest Service—not the area it actually owns. Review of ownership maps reveals Southern Appalachian National Forests that bear little resemblance to wildlife ranges, watershed flows, or other natural processes. Fortunately, every year around this time, Congress allocates money from off-shore drilling to purchase real estate to help fill in parts of this puzzle.

This year, however, the House did not appropriate a single dollar for new national forest acquisition, leaving important additions to our region's national forests bereft of needed funding and possibly to be lost to development. The Senate will hopefully fund this program when it passes a budget. The bill must go to conference before the matter will be decided. The Senate can then hold out for an adequate budget to fund acquisitions.

The need for these federal acquisitions in the South is urgent because sprawl development now consumes open space in chunks of more than one million acres per year. The land that abuts national forests provides some of the most attractive targets for developers. Without action, our public water supplies, wildlife habitat, and outdoor recreation could be compromised.

Congress could potentially appropriate \$900 million to federal land acquisition through the Land and Water Conservation Fund (LWCF). Originally, 85% of the acquisition was supposed to happen in the east because, unlike western national forests that were cut from immense public holdings, the eastern national forests have been assembled from private parcels that were purchased over time. Congress has failed to fund the program at full levels, especially in the east, for 40 years of the fund's existence.

The loss to America from the failure to complete our eastern national forests is significant. The forests of the Southern Appalachians include internationally significant hotspots of aquatic and terrestrial biodiversity and also provide clean drinking water for 10 million people. However, these same national forests have millions of acres of private inholdings, and are being rapidly degraded by the southeast's exploding sprawl development.

Please educate your representatives about the need to fully fund LWCF and ask your senator to approve the amount recommended by the President and hold out for high levels of LWCF funding in conference.

For more information about LWCF and how you can help, please visit www.safc.org.

IT WILL TAKE MORE THAN GRAVITY!

Pen-du-lum / n: device consisting of an object suspended from a fixed point that swings back and forth under the influence of gravity.

With the persistent attack on our nation's forests and environment over the last four years (increasing timber sales, environmental rollbacks, pseudo science, reduced conservation funding, polarization), some are wondering if the pendulum isn't broken—permanently positioned over on the right and never again to return. This metaphor should provide a compelling reason to be strategic about our outreach—magnifying our efforts with the reach of our member groups.

This year, SAFC celebrates 10 years of collaboration and coordination—providing a conservation vision, strengthening forest protection, and organizing public participation for forest policy in the region.

In our first 10 years, there have been many dedicated individuals involved with SAFC—working hard to Return the Great Forest. We would like to dedicate this newsletter to those who have come before us (past leaders and staff) and those who have supported us over the years. We would especially like to acknowledge the diligent work being done by our member groups.

A special mention of acknowledgment goes out to everyone who worked on the forest management plans for the forests of Alabama, Georgia, South Carolina, Tennessee, and Virginia. We brought a diverse group of analysts together and many long hours were put into this project—providing the Forest Service with one of the most comprehensive plan critiques ever presented. We did not get what the majority of the public was asking for, but rest assured—the results would have been so much worse if SAFC was not at the table. We look forward to working with the Forest Service in hopes of improving these plans and are preparing for the Pisgah/Nantahala (NC) planning process. Meanwhile, our work is being used for forest plans across the country.

The pendulum will swing back because citizens throughout the region care about protecting these last wild places. Unfortunately, many are not aware of the new environmental threats to this remarkable region—or cannot make the connection between mislabeled initiatives and their own lives (and the consequences for their children's future). Appalachian forests are important to many people, but don't always rise to the top when it comes to the more immediate personal challenges of employment, health care (and the media-hype of hostilities—real and imagined both here and abroad).

The Forest Coalition's challenge is to increase the relevance and importance of these forests to the lives of millions—to reestablish the connection and to raise the overall profile of our Southern Appalachians; to build a broader and deeper constituency for what it will take to restore, protect, and care for one of the world's unique treasures. It will take more than gravity to swing the pendulum back to a more sensible approach to our region's forests—it will take the powerful force of the people. Join us as we move into our second decade of forest protection!

Mark Shelley, Director

SAFC GROUPS CHALLENGE FOREST PLANS

After the U.S. Forest Service failed to acknowledge public input and provide adequate protection for our forests in the new National Forest Management Plans, SAFC and its members have filed administrative challenges. The new management plans dictate how the public forests in Alabama, Georgia, South Carolina, Tennessee, and Virginia are managed for the next 10-20 years.

In their current version, all five National Forest management plans violate federal laws and regulations because they

- contain flawed and inadequate roadless inventories and wilderness recommendations;
- do not protect old growth trees;
- authorize unrealistic and unsustainable logging goals and too much prescribed fire;
- fail to analyze realistic economic data, and fail to protect riparian areas;
- fail to consider public input and expertise from their own agency experts and other top scientists;
- fail to provide for adequate monitoring of rare wildlife and plants;
- add new material into the final plans that was not presented in the draft plans and the public was never allowed to express opinions on that material.

The Forest Service has 160 days to respond to the appeals and make any changes to the plan. If no changes are made, or negotiations initiated, then legal action can be taken.

This complex process has a lot of background. To learn more about the National Forest Management Plan Appeals, visit www.safc.org.

ROADLESS AREAS—IT'S NOT TOO LATE TO PROTECT THEM

Enacted in January 2001, after the largest public participation process in U.S. history, the Roadless Area Conservation Rule sought protection of the remaining third of America's last wild places, including 728,487 acres of pristine National Forest lands in our region. On July 12, 2004, the Bush administration announced a proposal for a new Roadless Rule that effectively repeals the Roadless Rule, placing 76% of these areas into forest management designations that would allow road construction and/or logging.

There is a 60-day comment period on the new proposed rule, which ends on September 15.

State May Ask for Protection

This most recent proposal gives governors of each state the option to petition the administration for roadless protection. Then, it is up to the discretion of the Under Secretary of Agriculture to approve any petitions for roadless area protection. The petition process is difficult and the administration can reject or ignore any state's petition.

What It Means

In effect, the proposed rule would allow governors of each state to “opt-in” for roadless protection. It could also allow governors to “opt-in” for increased resource extraction. This proposed rule offers no national protections for roadless areas, instead decisions on road building and logging would revert to forest plan.

Roads built in national forests are primarily for industrial uses—such as logging, mining, and oil drilling. These roads damage watersheds, destroy wildlife habitat, and ruin scenic vistas. Scientific studies show that roads allow for the spread of both native and exotic pests and pathogens, and that they increase the chances of wildfires.

What You Can Do

Once again, the administration is siding with the timber industry against the wishes of the American public—both Republicans and Democrats—who want a strong federal policy that permanently protects roadless areas. The administration continues to turn a deaf ear toward the public’s demand for securing these places—natural areas that provide us with clean air and water, hunting and fishing, recreation, and solitude.

Write the Forest Service today. Say you disagree with the new proposal, and want the Administration to uphold and enforce the Roadless Area Conservation Rule of 2001—as is.

Send a copy to your governor, or write a separate letter urging him or her to voice opposition to the Administration’s proposal.

Send comments to Content Analysis Team, ATTN: Roadless State Petitions, USDA Forest Service, P.O. Box 221090, Salt Lake City, UT 84122; faxed to (801) 517-1014; or e-mailed to statepetitionroadless@fs.fed.us.



Beautiful and historic Colby Hall,
University of North Alabama.

ALL TAXA BIODIVERSITY INVENTORY (ATBI) GATLINBURG, TENNESSEE

More information about the ATBI and Discovery Life in America (DLIA) may be obtained from the Administrative Officer, Jeanie Hilten, by e-mail jeanie@dlia.org. The website is <http://www.discoverlifeinamerica.org> or at <http://www.dlia.org>. The mailing address is Discover Life in America, 1314 Cherokee Orchard Road, Gatlinburg, TN 37738. The telephone number is (865) 430-4752.

The following four articles were reprinted with permission from the Vol. 4, No. 4, Autumn Newsletter, 2003 issue of the "ATBI Quarterly," Ruthanne Mitchell, Editor.

TREE CANOPY BIODIVERSITY HIGHLIGHTS IN GREAT SMOKY MOUNTAINS NATIONAL PARK

Harold W. Keller
Department of Biology
Central Missouri State University
Warrensburg, MO 64093

The initial objective of our project was to complete the first comprehensive inventory of tree canopy biodiversity for myxomycetes, macrofungi, lichens, mosses, liverworts, and ferns. Our tree canopy studies, which took place above 3 m from ground level, employed the double rope climbing technique. Student climbers completed a training course taught by a professional arborist and there were no climbing injuries during our two summer field trips of 2000 and 2001 while climbing over 240 trees representing 35 species. Students recorded their daily field experiences in a journal that later served as the basis for published articles.

Three phases of this research project were repeatedly emphasized: the adventure phase (tree climbing and sampling); the laboratory phase (sample sorting, moist chamber cultures, and data gathering); and publication phase (writing assignments as part of team-writing projects).

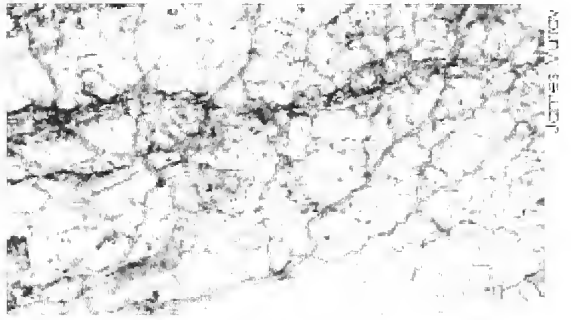
Melissa Skrabal (pictured at right collecting bark samples on tree #88) discovered a new myxomycete species of *Diachea* on July 4, 2000, while climbing *Quercus alba* tree #88. Distinct plasmodial tracks were observed on the bark surface at about 9 m and extended into the canopy to a height of 24 m. Melissa collected the plasmodial tracks and sporangia on the bark



surface and in the bark fissures. (Picture right: Network of plasmodial tracks on field-collected bark from tree #88.) The distinguishing characters of this new species are the combination of colors, the capillitial threads arising mostly from the tip of the columella, the unusual spore ornamentation, and the microhabitat in the canopy of living trees. Melissa was able to culture this taxon in moist chambers; her laboratory observations are given here. "In about two weeks the white oak bark produced the growth of a magnificent yellow plasmodial fan. It spread all over the bark and bottom of the Petri dish, leaving distinct vein-like plasmodial tracks just like on the surface of the tree bark. Finally, I was able to observe all of the developing stages of the sporangia culminating in a sphere of iridescent gold with a blending of the colors of the rainbow. I never realized such beauty existed in microscopic proportions."

Myxomycetes represent the only group of crytogams with species known only from the tree canopy. Ninety-five myxomycete species were obtained from the tree canopy study, and 52 of these were new records for the Park.

More information about this project can be found at the following web address: <http://faculty.cmsu.edu/myxo/>.



Yellow plasmodium growing on white filter paper in moist chamber culture.



Mature sporangium with intact, iridescent surface glittering gold, silver and bluish colors.

Harold W. Keller, Central Missouri State University
keller@cmsu1.cmsu.edu

The following article is reprinted with revisions from the original by the author.

GLOBAL BIODIVERSITY OF EUMYCETOZOANS

Steven L. Stephenson
Dept. of Biol. Sciences, University of Arkansas
Fayetteville, AR 72701

Many members of the Slime Mold Twig of the All Taxa Biodiversity Inventory (ATBI) being carried out in the Great Smoky Mountains National Park also will be involved in a major new project entitled "Global Biodiversity of Eumycetozoa." The overall goal of this project, which is being funded by a grant of more than \$2 million from the National Science Foundation, is to carry out a cooperative research effort that will involve more than 50 scientists from throughout the world. Specific objectives are (1) to conduct field-based surveys for eumycetozoa (slime molds) in areas of the world where data are currently lacking, (2) to compile a major specimen database that will include the majority of the collections in the world's herbaria and all available records or isolates relating to the occurrence of slime molds, (3) to use the information included in this database to construct world distribution maps for all known and new species of slime molds, (4) to develop a web-based information system on slime molds that would incorporate, in addition to the specimen databases and world distribution maps, a comprehensive body of information on each of the anticipated total of 1,200 to 1,300 known and new species revealed by a complete world-wide inventory, and (5) to prepare educational materials on the slime molds for use by interested laypersons, students and parataxonomists. The project, which is scheduled to last for at least five years, will be directed by Dr. Steve Stephenson at the University of Arkansas.

The surveys for slime molds carried out in Great Smoky Mountains National Park by members of the Slime Mold TWIG since 1998 served as a model for the methods being used in the global biodiversity inventory project, and virtually all of the individuals who have participated in the ATBI also are involved in the new, much larger, project. This group includes Martin Schnittler from Germany, Yura Novozhilov from Russia, David Mitchell from England, Roland McHugh from Ireland, Tatyana Krivomaz from the Ukraine, and Grazina Adamonyte from Lithuania in addition to a number of individuals from institutions here in the United States. Among the latter are James Cavender (Ohio University), Fred Spiegel and John Shadwick (University of Arkansas), John Landolt (Shepherd University in West Virginia), and Wayne Rosing (Middle Tennessee State University). Surveys of slime molds in the Smokies as part of the ATBI will be continued, and the specimen database from the Park will be compared with those to be developed for other parts of the world (i.e., in the context of the global biodiversity inventory project).

During the first year of the global biodiversity inventory project, field-based surveys were carried out in Australia, New Zealand, Kenya, Chile, Costa Rica, Kazakhstan, Guatemala, Guyana, Russia, Tanzania, Mongolia, China, and Thailand. Photo galleries of images from many of these surveys, along with additional information on the project as a whole, are available on the project web site (<http://cavern.uark.edu/ua/mycetozo/>).

Steve Stephenson, University of Arkansas, ssteph@uark.edu

HIGH COUNTRY SLIME MOLDS

Randy Darrah
Department of Biology
Fairmont State College
Fairmont, WV 26554

The slime mold TWIG added an international flavor to the High Country Quest, held during the period of July 31 to August 3, 2003, in the Great Smoky Mountains National Park. In addition to individuals from the United States, participants in the Quest included scientists from India, England, Costa Rica, Lithuania, and the Ukraine. The 13-member research team consisted of a number of well-known experts as well as interested amateurs and volunteers.

A large part of the Quest was devoted to making field collections of the fruiting bodies of plasmodial slime molds (myxomycetes). These intriguing organisms occur primarily on decaying logs, leaf litter, and bark of living and dead trees. Their fruiting bodies can be black, white or eye-catching colors such as brilliant red, yellow, and orange. Some are even iridescent. While most are only a fraction of an inch in height, some can approach the diameter of a dinner plate in size and when conditions are optimal, colonies of fruiting bodies consisting of thousands of individuals can reach many square feet in size. Field collections are carefully mounted in matchbox-sized boxes and accurately identified in the laboratory using structural features observed with the aid of stereoscopes and compound microscopes. Since the slime mold survey component of the ATBI project began in 1998, the number of species found within the GSMNP has more than doubled from 88 to more than 200.

The slime molds consist of three distinct groups: plasmodial slime molds, which are the largest both in the size of the fruiting body and number of species; the cellular slime molds or dictyostelids, which must be isolated from samples of soil/litter in the laboratory; and the protostelids, which are the smallest (the fruiting body usually consists of a single spore on a stalk) and can be observed only in laboratory cultures with the use of a compound microscope.

Myxomycetes also may be enticed into fruiting under artificially produced "optimal conditions" that exist in what are called moist chamber cultures. A substrate, such as bark or litter, is placed in a Petri dish, soaked with water, and then the water in the culture is poured off. The covered Petri dish provides the environment necessary for myxomycete spores to germinate, ultimately producing collectable and identifiable specimens. Several sets of substrate samples were collected throughout the Quest, and the moist chamber cultures in which these samples were placed are still yielding specimens.

During the High Country Quest, samples for the isolation of dictyostelid cellular slime molds were collected at several localities. In earlier collecting trips to the Park, several species that are new to science have been isolated;



Hemitrichia calyculata

therefore additional sampling was carried out at Andrews Bald, Purchase Knob and Balsam Mountain in an effort to recover more isolates of these new species. Approximately half a dozen described species previously isolated from the Park were recovered from these samples, but none of the new species was recovered. A number of additional samples were collected at Spence Field and Icewater Spring by other Quest participants and DLIA volunteers. While most of the cellular slime molds recovered from these samples were species previously recovered from the Park from similar localities, **there** was one isolate, yet to be assigned to a particular species, that may represent a new record for the Park and possibly an additional species new to science.

Following excellent collecting on Saturday afternoon, participants met at the Sugarlands training room to compare and discuss the day's collections. Selected collections were photographed using a digital camera/stereoscope setup that also permitted real-time viewing of the collections on a television monitor. Many of the images were then saved to a CD for members to keep.

All the localities visited during the Quest produced collections. These included Andrew's Bald, Indian Gap, Purchase Knob, Clingmans Dome, and Balsam Mountain. **Participants in the slime mold component of the High Country Quest** were Randy Darrah and Krystal Kolozy from Fairmont State College in West Virginia, Steve Stephenson formerly at Fairmont State College in West Virginia but now a member of the faculty at the University of Arkansas, Adam Rollins from West Virginia University, Dawn Black from Ohio University, John Landolt from Shepherd College in West Virginia, Ted Stampfer from New Mexico, Madhu Khetmalas from India, David Mitchell from England, Tatyana Krivomaz from the Ukraine, Grazina Adamonyte from Lithuania, Carlos Rojas from Costa Rica, and Sang and Deborah Park, from New Jersey.



Randy Darrah taking digital images of specimens collected during the High Country Quest.



Researchers at Purchase Knob. Dawn Black, Madhu Khetmalas, Carlos Rojas, Steve Stephenson. Standing: Sang Park, David Mitchell, Grazina Adamonyte, Tatyana Krivomaz, Randy Darrah, Adam Rollins, Ted Stampfer, Deborah Park, John Landolt.

Randy Darrah, Fairmont State College
 rander@mteer.com

OWLET OR NOCTUID MOTHS OF GREAT SMOKY MOUNTAINS NATIONAL PARK

Michael G. Pogue
Smithsonian Institution NMNH
P.O. Gox 37012, MRC-168
Washington, DC 20013-7012

The Owlet moths comprise the family Noctuidae and are the most diverse family in the order Lepidoptera, which includes the butterflies and moths. There are approximately 2,900 species in North America and over 35,000 in the world.

The late Douglas Ferguson, who took trips to the Park in the late 1960's and 1970's, was among the first to draw attention to the unique high elevation moth fauna. The first intensive butterfly and moth survey of Great Smoky Mountains National Park was conducted from 1988-89 by K. Watson and P. Lambdin (University of Tennessee) and produced a total of 807 species of Lepidoptera and 293 species of Noctuidae. The Lepidoptera TWIG of the All Taxa Biodiversity Inventory began ramping up its survey efforts in 1999 when Brian Scholtens (College of Charleston) began making regular trips to the Park to collect pyralid moths and Eric Metzler (Columbus, OH) was awarded a Discover Life in America (DLIA) grant to study the fall-active moth fauna. In 2000, a second DLIA grant to John W. Brown (USDA) and Donald R. Davis (Smithsonian Institution) provided funds for a taxonomically comprehensive, season-long survey. Also in that year, David Wagner (University of Connecticut) organized the first Lepidoptera Bio-blitz in the Park—during the 24-hour moth and butterfly quest the team of 16 lepidopterists and sundry volunteers recorded over 700 species. Davis and Brown were funded in 2001 from the Smithsonian Biodiversity Program to continue their Lepidoptera surveys in the Park. A second Bio-blitz was held on June 8, 2002; this time the “swat team” recorded over 860 species. Additionally, Paul Super, Wanda DeWaard, Michelle Prysby, and a small army of their students have added tens of hundreds of records in the Tremont and Purchase Knob areas, especially for the poorly known early and late-season taxa, and in the process probably hatched a handful of future lepidopterists. Other collectors who have contributed significantly to our knowledge of the Noctuidae of the Park, primarily through their collecting efforts, include James Adams (Dalton College, GA), Richard L. Brown (Mississippi State University) and J. Bolling Sullivan (Beaufort, NC). Specimens from these collectors, and those already in the Park's collection, form the core of the Noctuidae from Great Smoky Mountains National Park with the current total of about 4,000 specimen records representing the 456 vouchered species.

This year's collecting efforts have focused on high altitude and back country sites, including Gregory and Parson Balds, which were surveyed on 26-28 May. Because moth collecting requires a lot of heavy equipment, we collaborated with Sandy Sgrillo of Smoky Mountain Llama Treks who used five of her pack llamas to transport our equipment up to the campsite. On the way up to Gregory Bald, Sandy led Taylee and Cinnamon Mocha, Lynn Cartee had Domino, my wife Anne led Banana Man, and I had J. J. Bird. Taylee and Cinnamon Mocha are large llamas and each carried from 40-50 lbs. Domino was a friendly beast that would stick his nose in your face and want to nuzzle. Banana Man is 17 years old and worked in the park for 9 years in the pack train taking supplies to LeConte

Lodge; he and Anne led most of the way up the steep trail. Leading J. J. Bird was like walking a 200-lb, 5½-foot tall dog, and he made amusing whining sounds most of the way up the mountain. When we reached Gregory Bald, the llamas were very happy to see the lush grass and cool windswept bald, and the views from the top, with the llamas in the foreground, remind one of being high in the Andes. Three days later, Sandy and Kevin Gordon arrived right on time and we began loading the llamas for the trip back down the mountain.



Polychrysis morigera (Hy. Edw.) is a new park record from two high altitude sites.



Llama pack train on top of Gregory Bald. Left to right Michael Pogue, Sandy Sgillo, and Anne Pogue. (Photo by Keith Langdon)

The data for the first two trips, a total of 5 weeks in May-June and July-August, resulted in finding 148 species and 1,329 species of Noctuidae. **Five new species were added to the Park list for a total of 462 species. The five new species were *Papaipema unimoda* (Smith), *Apamea lignicolora* Guenée, *Protorthodes oviduca* (Guenée), *Abrostola ovalis* Guenée, and *Cucullia florum* Guenée.** Four of the five species were collected in the vicinity of the Purchase Knob house and *A. ovalis* was collected near the Twentymile Ranger Station.

I would like to thank Steve Higdon who volunteered with me at the Purchase Knob house during the High Country Quest, and without the aid of the llamas, collecting in the vicinity of Gregory and Parson Balds would not have been as successful.

Michael Pogue, Systematic Entomology Laboratory, Smithsonian
mpogue@sel.barc.usda.gov

\$60,000 in Awards Presented to ATBI Researchers Jeanie Hilten, DLIA

Grant money supplied to Discover Life in America by the Great Smoky Mountains Association and Friends of Great Smoky Mountains National Park is supporting All Taxa Biodiversity Inventory research in the Park for the 2004 season. Dr. John Morse, Discover Life in America Board member and Science Committee Co-Chair, administers the grant program, now in its fifth year. The review panel included seven DLIA scientists. Requests totaled \$67,247 for the \$60,000 budgeted for this year. The granted proposals' executive summaries may be viewed on the Discover Life web site: www.discoverlifeinamerica.org.

Fifteen proposals were funded. The research will delve into a variety of life forms in Great Smoky Mountains National Park, including aphids, ants, aquatic worms, beetles, grasshoppers, lichens, micro-fungi, fruit flies, and tardigrades. One of this year's projects involves teachers and students designing and conducting scientific research in the Park. Educational workshops and bio-quests for lichens and for Lepidoptera were funded. Some of the proposals are continuations of previous and ongoing work. All are coordinated with the Discover Life in America Science Plan.

Recipients of the grants will present a written and oral report of results to date at the December, 2004, annual meeting of the ATBI, with a final report by March 1, 2005. They will contribute geo-referenced data and send voucher specimens to the Park and other authorized collections. Individuals and organizations interested in assisting with the funding of future ATBI research please contact Steve Bohleber, steve@bohleberlaw.com, DLIA Board member and chair of the Development Committee.

Congratulations to these scientists for their selection:

Paul Bartels, Warren Wilson College: *Continued Inventory of Phylum Tardigrada*

Richard Baird, Mississippi State University: *Microfungi of American Beech, Fraser fir, and Eastern hemlock*

Matthew Dakin: *Survey of the Suborder Caelifera*

Colin Favret, Illinois Natural History Survey: *Expanding our Knowledge of the Aphids of the Park*

John B. Heppner, Florida State Collection of Arthropods: *Biodiversity of Day-flying Micro-moths of GSMNP*

Harold Keller, Central Missouri State University: *Lichen Bio-Quest in Great Smoky Mountains National Park*

Paul Marcum, Illinois Natural History Survey: *Search for New and Rare Vascular Plants and Lichens*

Michael Pogue, Smithsonian Institution: *Noctuidae (Lepidoptera) of GSMNP*

Edward Riley, Texas A & M University: *Continuation of Leaf Beetle Inventory*

Nathan Sanders, University of Tennessee: *Ant Diversity in Great Smoky Mountains National Park*

Brian Scholtens, College of Charleston: *Lepidoptera BioBlitz 2004*

Charles Staines: *Inventory of Five Families of Beetles (Insecta: Coleoptera) in GSMNP*

Gary Steck and Bruce Sutton, Florida Department of Agriculture: *Tephritid Flies of Great Smoky Mountains National Park*

Paul Super, Great Smoky Mountains National Park: *Teacher Enrichment Internship*

Mark Wetzel, Illinois Natural History Survey: *To Continue an Inventory of Freshwater Oligochaeta (Annelida) in GSMNP.*

REVIEWS

Debbie Moore, *Review Editor*
Department of Natural Sciences
P. O. Box 8368, Troy State University
Dothan, AL 36304-8368

Coyne, Jerry A. and H. Allen Orr. 2004. **Speciation**. Sinauer Assoc., Sunderland, MA. 545 p. \$89.95 casebound and \$54.95 paperback.

Don't expect to dash off reading *Speciation* by Coyne and Orr in one sitting. This is a slow reading, 545-page publication full of information on speciation—what is it, how does it occur, and why? The authors are “evolutionary biologists who have worked largely with *Drosophila*, using genetic approaches to understand the evolution of reproductive isolation” (p. 6). They review current work and ideas in the field.

Twelve long, involved, detailed chapters comprise this volume: (1) Species: Reality and concepts, (2) Studying speciation, (3) Allopatric and parapatric speciation, (4) Sympatric speciation, (5) Ecological isolation, (6) Behavioral and nonecological isolation, (7) Postzygotic isolation, (8) The genetics of postzygotic isolation (9) Polyploidy and hybrid speciations, (10) Reinforcement, (11) Selection versus drift, and (12) Speciation and macroevolution. An appendix: Catalog and critique of species concepts, pp. 447-472; a voluminous list of references cover, pp. 473-521; author index, pp. 523-532; and subject index, pp. 533-545, round out the volume.

Each chapter of ideas is dissected to the n^{th} degree before the conclusions; if they are important, they are presented: for example, Mayr's Biological Species Concept (p. 14), Haldane's rule (p. 284), and Dobzhansky's are discussed at length regarding allopatry, sympatry, hybridization, speciation, etc. The authors also deluge us with a myriad of terms, i.e., Anagenesis (p. 55), Cladogenesis (p. 55), Epitosis (p. 52), Chirality (direction of coiling, p. 111), etc.; many are not listed in the subject index.

The chapters and discussions are lengthy with references to *Drosophila* and plant experiments (true more studies have treated these groupers as they are easy to experiment with). Only a smattering of examples refer to lizards, birds, or fishes. The latter is strange for many hybrid studies of fishes have been published (3745, Schwartz 1972, 1981, 5900 others since). Most irritating is the rampant use of prepositions beginning sentences, rendering them a nonsentence. The entire volume could have been drastically reduced by using a number of figures and tables listing the pros and cons of an idea instead of the various segments, rehashing ideas, causing vast pages of reading. Genetics may relish this approach but for others this chattiness made ideas and problems hard to follow. The authors missed various good fish papers on the subject of speciation or parasite-host distribution association: Fink (1990), Mayden (1999), Mayden and Wood (1995), and Cressey and Lachner (1970). *Speciation* is a thorough volume on the subject, the price is right and if you overlook the above and the overuse of *Drosophila* examples, you will delight and be richly rewarded by the information therein. As Brookfield (2002, p. 25) states: “We should settle our favorite definition, use it, and get on with the science.”

Literature Cited

- Brookfield, J. 2002. Review of the genes, categories, and species by Jody Hey. *Genet Res.* 79: 107-108.
- Cressey, R. F. and E. A. Lachner. 1970. The parasitic copepod diet and life history of disk fishes (Echeneidae). *Copeia* 1970: 310-318.
- Fink, W. L. 1990. Review, The genome in zoology: a contribution to the theory of evolutionary systematics. *Quart. Rev. Biol.* 65: 79-80.
- Mayden, R. L. 1999. Consilience and a hierarchy of species concepts. *Advances toward closure of the species puzzle. J. Nematology* 31(2): 95-116.
- Mayden, R. L. and R. M. Wood. 1995. Systematics, species concept, and the evolutionary significant unit in biodiversity and conservation biology. *Am. Fish. Soc. Symp.* 17: 58-113.
- Schwartz, F. J. 1972. World literature to fish hybrids, with an analysis by family, species, and hybrid: Publ. Gulf Coast Res. Lab. Mus. 3, 328 p.
- Schwartz, F. J. 1981. World literature to fish hybrids, with an analysis by family, species, and hybrid: Supplement 1, NOAA Tech. Rept. NMFS-SSRF 750, 507 p.

FRANK J. SCHWARTZ, *Institute of Marine Sciences, University of North Carolina, Morehead City, NC 28557-3209.*



Barnes, Thomas G. and S. Wilson Frances. 2004. **Wildflowers and Ferns of Kentucky.** The University Press of Kentucky, Lexington, KY. 352 pages. \$29.95.

Wildflowers and Ferns of Kentucky is a new field guide that covers the botanical diversity of the Bluegrass State. Those familiar with the flora of Kentucky are likely familiar with the classic volume *A Guide to Wildflowers and Ferns of Kentucky* which was originally published in the 1970's. This new guide, however, provides updates on the state of herbaceous plant life in Kentucky and other information that will surely make it a useful resource for professional and amateur botanists alike. The text starts with an informative introduction which covers botanical and ecological basics, as well as important modern concepts concerning conservation and exotic species. The body of the book contains numerous, detailed photographs (approximately 500) and concise species descriptions.

The angiosperm content of *Wildflowers and Ferns of Kentucky* is first organized by flowering season, and then by flower color. Within color groups, the authors indicate in the introduction that species are organized by "flowering period" and then, when possible, "by family." While this arrangement might make the systematist cringe, the authors openly admit that this organizational approach is used to support the common approach to field identification of "thumbing through pages" until one finds a picture that looks right. Species in the book are accompanied by fantastic photos that highlight the important features needed for identification. Line drawings are also provided to highlight key morphological differences among taxa. The descriptions of each species are clear, concise, and focused. The field guide is very easy to use and can help even the most inexperienced botanists determine what plant it is that they have found.

How taxa are organized is the only shortcoming of this book. For some taxa, related species are adjacent to one another in the book. However, a problem that

occurs in a few instances is that related and similar appearing taxa are not adjacent to one another. For example, in the yellow summer flowers section, several *Coreopsis* species are separated by eight pages from a similar appearing *Silphium*. Likewise, two species of *Rudbeckia* are not next to one another, but rather are separated by ten pages. Thus, the authors could have helped their readers more by providing a stronger family based grouping throughout the book, or at least organized color groups into flower shape groups and still allowed them to use the "look for a similar picture" approach. Organization within groups is particularly problematic in the fern section in which taxa are loosely grouped into plants that look alike (and as a consequence the horsetails and club mosses are placed together). But, once one gets into the ferns the organizational scheme is not clear. All is not lost though. The final section of the book does provide adequate coverage of family characteristics and basic terminology of floral and vegetative morphology.

Despite organizational problems, the guide contains many beautiful photographs which provide good views of the taxa. While a systematist might find fault with how this book is arranged, I think that botanists out in the field enjoying a hike and the scenery would be glad they put this field guide in their backpack.

J. PHIL GIBSON, *Department of Biology, Agnes Scott College, Decatur, GA 30030.*



University of North Alabama campus scene.



Statement of Ownership, Management, and Circulation
(Required by 39 USC 3685)

Southeastern Biology	2. Publication Number									3. Filing Date
	1	5	3	3	-	8	4	3	6	September 29, 2004
4. Issue Frequency Quarterly	5. Number of Issues Published Annually 4									6. Annual Subscription Price \$28.00
7. Complete Mailing Address of Known Office of Publication (Not printer) (Street, city, county, state, and Zip+4) Southeastern Biology, 810 East 10th P.O. 1897, Lawrence, KS 66044-0368										Contact Person Beverly Prescott
										Telephone (785)843-1234 Ext. 131
8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer) Southeastern Biology, 810 East 10th P.O. 1897, Lawrence, KS 66044-0368										

9. Full names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank)

Publisher (Name and complete mailing address)
Southeastern Biology, 810 East 10th P.O. 1897, Lawrence, KS 66044-0368

Editor (Name and complete mailing address)
James D. Caponetti, Department of Botany, The University of Tennessee, Knoxville, TN 37996-1100

Managing Editor (Name and complete mailing address)

10. Owner (Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.)

Full Name	Complete Mailing Address
The Association of Southeastern Biologists	2700 York Road, Burlington, NC 27215

11. Known Bondholders, Mortgages, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box ☒ None

Full Name	Complete Mailing Address

12. Tax Status (For completion by nonprofit organizations authorized to mail at special rates) (Check one)
The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes:
☒ Has Not Changed During Preceding 12 Months
☐ Has Changed During Preceding 12 Months (Publisher must submit explanation of change with this statement)

13. Publication Title Southeastern Biology		14. Issue Date for Circulation Data Below August-04	
15. Extent and Nature of Circulation		Average No. Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)		1045	950
b. Paid and/or Requested Circulation	(1) Paid/Requested Outside-County Mail Subscriptions stated on Form 3541. (Include advertiser's proof and exchange copies)	879	882
	(2) Paid In-County Subscriptions (Include advertiser's proof and exchange copies)	0	0
	(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution	0	0
	(4) Other Classes Mailed Through the USPS	15	16
c. Total Paid and/or Requested Circulation (Sum of 15b(1), (2), (3), and (4)) ▶		894	898
d. Free Distribution by Mail (Samples, complimentary, and other free)	(1) Outside-County as Stated on Form 3541	1	1
	(2) In-County as Stated on Form 3541	0	0
	(3) Other Classes Mailed Through the USPS	1	1
e. Free Distribution Outside the Mail (Carriers or other means)		0	0
f. Total Free Distribution (Sum of 15d and 15e) ▶		2	2
g. Total Distribution (Sum of 15c and 15f) ▶		896	900
h. Copies not Distributed		149	50
i. Total (Sum of 15g. and h.) ▶		1045	950
Percent Paid and/or Requested Circulation (15c divided by 15g times 100)		99.8	99.8
16. Publication of Statement of Ownership <input checked="" type="checkbox"/> Publication required. Will be printed in the <u>Dec., 2004</u> issue of this publication. <input type="checkbox"/> Publication not required.			
17. Signature and Title of Editor, Publisher, Business Manager, or Owner <i>James D. Capanetti; Print Editor</i>		Date <i>Sept. 29, 2004</i>	

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

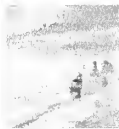
Instructions to Publishers

- Complete and file one copy of this form with your postmaster annually on or before October 1. Keep a copy of the completed form for your records.
- In Cases where the stockholder or security holder is a trustee, include in Items 10 and 11 the name of the person or corporation for whom the trustee is acting. Also include the names and addresses of individuals who are stockholders who own or hold 1 percent or more of the total amount of bonds, mortgages, or other securities of the publishing corporation. In Item 11, if none, check the box. Use blank sheets if more space is required.
- Be sure to furnish all circulation information called for in Item 15. Free circulation must be shown in items 15d, e, and f.
- Item 15h., Copies not Distributed, must include (1) newsstand copies originally stated on Form 3541, and returned to the publisher, (2) estimated returns from news agents, and (3), copies for office use, leftovers, spoiled, and all other copies not distributed.
- If the publication had Periodicals authorization as a general or requester publication, this Statement of Ownership, Management, and Circulation must be published; it must be printed in any issue in October or, if the publication is not published during October, the first issue printed after October.
- In item 16, indicate the date of the issue in which this Statement of Ownership will be published.
- Item 17 must be signed.

Failure to file or publish a statement of ownership may lead to suspension of second-class authorization.

Thomson Brooks/Cole Proud to be a Patron Member of ASB!

For more information,
please visit us at:
<http://biology.brookscole.com>



Starr Biology Today and Tomorrow

0-534-49564-8

A brief new, issues-oriented book that encourages students to master biological concepts and make informed judgments. Ask us how BiologyNow customizes students' learning plans!

Also available:

Basics Edition without physiology
0-534-49565-6



Tobin/Dusheck Asking About Life, Third Edition

0-534-49653-X

An introduction to biology centered on how experiments drive science (and scientists). Together, the text and free CD-ROM challenge students to think about how to ask and answer questions.

And coming soon from G. Tyler Miller, Jr.!



Essentials of Ecology, Third Edition

0-534-99775-9

A clear, succinct introduction to the science of ecological issues that encourages students to develop informed opinions with "How Would You Vote?" questions. Comes with free Student CD!



A Thomson Advantage Book! Sustaining the Earth: An Integrated Approach, Seventh Edition

0-534-49672-5

A Thomson Advantage Book—a great text at a lower price! The briefest, most balanced, up-to-date text on the market, with free Student CD and "How Would You Vote?" questions to get students thinking.



Living in the Environment: Principles, Connections, and Solutions, Fourteenth Edition

0-534-99729-5

The most balanced, comprehensive, timely text on the market, featuring bias-free comparative diagrams, a free Student CD, and "How Would You Vote?" questions and writing focused on thinking about how to prevent and solve environmental problems.



Sherwood/Klandorf/Yancey Animal Physiology: From Genes to Organisms

0-534-55404-0

An integrative systems approach illustrates both underlying principles and the interdependence of systems. Detailed comparisons illuminate the unity of life and the diversity of evolutionary adaptation.



Odum/Barrett Fundamentals of Ecology, Fifth Edition

0-534-42066-4

A classic from the master of systems ecology! The holistic presentation of ecosystem science is now complemented by an evolutionary approach and new chapters on landscape/regional/global ecology and statistical methods.



Johnson/Triplehorn Borror and DeLong's Introduction to the Study of Insects, Seventh Edition

0-03-096835-6

A classic study of insects and insect identification ... now fully updated throughout with new information on phylogeny using systematics, and a greater emphasis on insect biology and evolution.



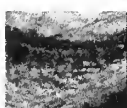
Barnum Biotechnology: An Introduction, Second Edition

0-534-49296-7

Current, rigorous, and exciting, this text offers a broad overview of the field, describes processes and methods, and uses case studies to illustrate the applications—and implications—of biotechnology.

THOMSON
★
BROOKS/COLE

5BCBIASB



Biotechnology—the future is now. Are you ready?



Biotechnology has changed drastically in the 50 years since the discovery of the structure of DNA. To keep up with the future, you need the most current and best biotech instructional materials.

That's why Carolina Biological Supply Company has partnered with the Dolan DNA Learning Center (DNALC), an operating unit of Cold Spring Harbor Laboratory—where James D. Watson is President—an important center for molecular genetics research. Since 1986, Carolina's professional staff has worked with the DNALC to bring to educators the very best kits and supplementary materials available—anywhere. As teacher or student, you can use these materials with confidence, knowing that they have been designed and tested to save you time, energy, and other resources—without sacrificing quality.

To find out more about the innovative biotechnology instructional materials available from Carolina, visit www.carolina.com, send an email to carolina@carolina.com, or phone 800.227.1150.

Carolina Biological Supply Company

2700 York Rd • Burlington NC 27215
800.334.5551 • www.carolina.com

CAROLINA
World-Class Support for Science & Math



Dedicated to
Problem Solving and Value-Added Solutions

Web Site: <http://www.bda-inc.com/home.html>

Florida (USA) Office:
BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave. Winter Park, Florida 32789
Tel: 407 677-1882 Tel: 800 304-1882 Fax: 407 657-7008

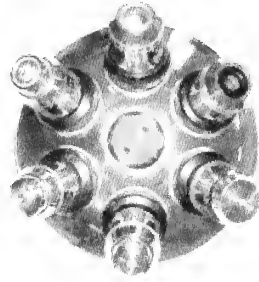
Tennessee (USA) Office:
BREEDLOVE, DENNIS, YOUNG & ASSOCIATES, (TN) INC.
133 Holiday Court Suite 207, Franklin, Tennessee 37067
Tel: 615 599-1996 Fax: 615 599-1998

Martin Microscope Company

Since 1946

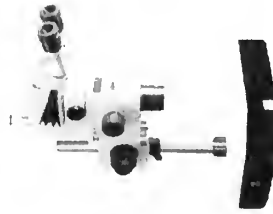


Martin Microscope Company is based in the Southeastern United States, and is a retailer of new and used optical microscopes and accessories.



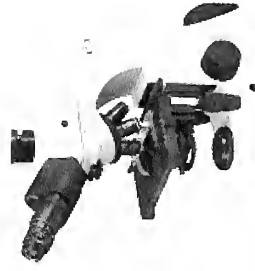
NEW SONY iCY-SHOT DXC-S500 SMP Digital Camera \$5,750.00...

A privately owned independent company, Martin Microscope sells microscopes and accessories of many brands – providing the best combination of quality and affordability to our customers.



Meiji RZ Research Zoom Stereomicroscope \$7,000.00 as shown

**Martin Microscope Company
207 South Pendleton Street
Easley, SC 29640 USA
Phone: 864-242-3424
FAX: 864-859-3332
E-Mail: sales@martinmicroscope.com**



NEW Motic BA450 Laboratory Compound Microscope with Infinity Plan Achromat Objectives \$2,475.00



ASSOCIATED MICROSCOPE

COMMITTED TO QUALITY 1-800-476-3893



Quality Instruments for Business, Education and Home

Leica VIDEO LASER ken-e-vision

MEIJI
TECHNO

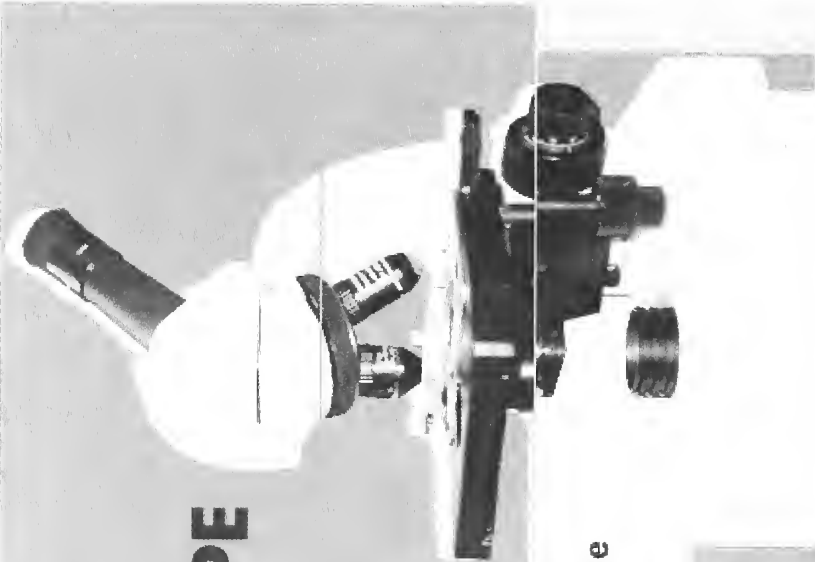
PARCO

Associated Microscope. All Rights Reserved.



Call 1-800-476-3893 to order!

Visit the website of Associated Microscope: <http://www.associatedmicroscope.com/>



ASB MEMBERSHIP DUES STRUCTURE

Please complete the information below, enclose check or money order payable to **Association of Southeastern Biologists**, and mail to **Deborah Atkinson, Office of Continuing Education, School of Public Health, University of North Carolina, CB# 8165, 400 Roberson Street, Chapel Hill, NC 27599-8165**. The mailing label shows the year through which you are paid. For example, if the date is 2002, you need to pay for 2003 and 2004. If there is an error, please contact Deborah Atkinson, tel. (919) 843-6892, FAX (919) 966-5692, e-mail datkinso@sph.unc.edu. Thank you for your support.

Name _____

Address _____

City _____ State _____ Country _____

Zip code _____ Telephone (____) _____

FAX (____) _____ E-mail _____

Regular -- \$25 _____

Regular for 3 years -- \$65 _____

Family -- \$30 _____

Student -- \$10 _____

Emeritus -- \$10 _____

Contributing -- \$50 _____

Sustaining -- \$100 _____

Life -- \$250 _____

Patron -- \$750 _____

Library -- \$30 _____

Library for 3 years -- \$85 _____

ENRICHMENT FUND CONTRIBUTION _____

TOTAL ENCLOSED \$ _____

Paid for 2003 ____; 2004 ____; 2005 ____.

If you wish to subscribe to *The Southeastern Naturalist*, please see page 398 for subscription information.



SOUTHEASTERN BIOLOGY
VOLUME 51, NUMBER 4, December, 2004
<http://www.asb.appstate.edu/>

In This Issue

2005 MEETING OF THE ASSOCIATION	369
2005 MEETING SYMPOSIA ANNOUNCEMENTS.....	376
MINUTES OF THE APRIL 14, 2004, EXECUTIVE COMMITTEE MEETING	378
MINUTES OF THE APRIL 17, 2004, EXECUTIVE COMMITTEE MEETING	386
2004 ASIH AWARDS	395
THE <i>SOUTHEASTERN NATURALIST</i> JOURNAL	398
2005 ASIH AWARDS ANNOUNCEMENTS.....	400
SOUTHERN APPALACHIAN FOREST COALITION INFORMATION	406
ALL TAXA BIODIVERSITY INVENTORY ARTICLES.....	411
BOOK REVIEWS.....	419
USPS STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION	422
ASB PATRON MEMBERS	424

PATRON MEMBERS

Associated Microscopes, Inc., Elon College and Haw River, NC
Tim Atkinson, Burlington, NC
Breedlove, Dennis and Associates, Inc., Orlando, FL
Carolina Biological Supply Company, Burlington, NC
Martin Microscope Company, Easley, SC
Thomson-Brooks/Cole, Belmont, CA